

Police Science

Australia & New Zealand Journal of Evidence Based Policing

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CALL FOR NOMINATIONS

Distinguished Police Scientist Award

This annual award recognizes a member of the ANZSEBP who is an innovative law enforcement practitioner who is central to the implementation of a high quality program of work that advances Evidence Based Policing in their agency. These leaders of evidence-based policing not only help make high-quality police scholarship possible but also advance significant reforms in policing by utilizing science in their decision making.

- Nominees must be or have been **a member of a law enforcement agency**, either as a sworn officer or civilian employee; and
- Nominees must have been **central to the implementation of a documented rigorous scientific evaluation** in their affiliated agency. Such evaluations can be conducted for various interventions, policies, or practices and include a wide variety of outcomes (i.e., crime reduction, improvement in citizen satisfaction, reduction of fear, improvements in police legitimacy, etc.); and
- Nominees must show a **record of incorporating and translating evidence-based practices in their agency**. These practices may include implementing strategies that have been shown to be effective in reducing and preventing crime or using practices supported by research that address fear of crime, police legitimacy, internal accountability, and other law enforcement concerns. Such a record of practice might also include greater incorporation of science and scientific processes in decision making or training.

Selection decisions are made by the ANZSEBP Management Committee.

The Award winner will receive: free registration at the annual SEBP conference, a speaking role at the SEBP conference, an award plaque, free subscription to the Journal of Experimental Criminology for one year, and a published interview about his/her accomplishments to appear in Police Science.

To nominate for this award please go to our website (www.anzsebp.com) to download the nomination forms.

Outstanding Police Experiment Award

This award recognizes a single research project that contributes significantly to policing science. To be eligible a study must have been conducted within the last five years.

- Nominees can be individuals or teams.
- The study must be an impact evaluation that assesses the effectiveness of a policing intervention.
- A policing intervention is defined as some kind of a strategy, technique, approach, activity, campaign, training, directive, or funding/organisational change that involves police in some way (other agencies or organisations can be involved). Police involvement is broadly defined as police initiation, development or leadership where police deliver or implement the intervention or where police are recipients of the intervention. We will also

consider interventions that are related, focused or targeted to police practices.

- The project must use randomised experimental (e.g., RCTs) and quasi-experimental evaluation designs with a valid comparison group that does not receive the intervention. We will accept designs where the comparison group receives 'business-as-usual' policing, no intervention or an alternative intervention (treatment-treatment designs) and quasi-experiments that control the assignment of cases to treatment and control groups (regression discontinuity), match the characteristics of the treatment and control groups (matched control), statistically account for differences between the treatment and control groups (designs using multiple regression analysis), or provide a difference-in-difference analysis (parallel cohorts with pre-test and post-test measures). Single group designs will not be considered. The following designs will be considered:
 - Randomized Controlled Trials
 - Meta-analyses
 - Cross-over designs
 - Regression discontinuity designs
 - Designs using multivariate controls (e.g., multiple regression)
 - Matched control group designs with or without pre-intervention baseline measures (propensity or statistically matched)
 - Unmatched control group designs with pre-post intervention measures which allow for difference-in-difference analysis
 - Short interrupted time-series designs with control group (less than 25 pre- and 25 post-intervention observations)
 - Long interrupted time-series designs with or without a control group (≥ 25 pre- and post-intervention observations)
 - Unmatched control group designs without pre-intervention measures where the control group has face validity
 - Raw unadjusted correlational designs where the variation in the level of the intervention is compared to the variation in the level of the outcome
 - Treatment-treatment designs

Selection decisions are made by the SEBP Executive Committee.

The Award winner (or winning team representative) will receive: free registration at the annual SEBP conference, a speaking role at the SEBP conference, an award plaque, free subscription to the Journal of Experimental Criminology for one year, an invitation to publish the project results in Police Science.

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Key Dates

Nomination Submission Deadline:	1 July 2018
Recipient Notification:	1 September 2018

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They should be no more than 6000 words long (not including references) and be Harvard referenced.

Articles should be based upon the aims and objectives of the journal and the evidence based policing approach.

Contributions

Articles on issues of professional interest are sought from Australasian police officers and police academics. Articles are to be electronically provided to the Secretariat, mclaren.scott@police.qld.gov.au. Articles are to conform to normal academic conventions. Where an article has previously been prepared during the course of employment, whether with a police service or otherwise, the contributor will be responsible for obtaining permission from that employer to submit the article for publication to *Police Science*. Contributors are expected to adhere to the Journal's publishing guidelines. These guidelines are available in this journal. All papers are peer-reviewed.

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Message from the Chairperson



Stephen Brown *APM M.St (Cantab)*

*Chairperson, Australian and New Zealand Society of Evidence Based Policing
Deputy Commissioner, Western Australia Police, Australia*

The past six months have been a very interesting and busy period within policing. There have been significant changes at the executive level in a number of our policing jurisdictions. It has been delightful to have had the opportunity to support, with my fellow executive officers, the fantastic work that is going on around Australia and New Zealand in the evidence based policing space.

It is my pleasure on behalf of the society to welcome Assistant Commissioner Alan McCarthy, who will represent the Queensland Police on the ANZSEBP board. Alan has over 40 years of policing experience, with a significant time invested in training and development. Alan currently directs the Organisation Capability Command, under which Queensland's EBP program rests.

It's also important that I also remark on the outstanding support and guidance offered by our academic partners in evidence based policing. I understand that several of the universities have seen an increase in criminology students, as well as a rise in the number of projects being undertaken. This is important to sustain the symbiotic partnership that exists.

A number of our members recently attended the American Society of Criminology Conference in Atlanta as well as the UK SEBP Conference at Milton Keynes. The ability to share and learn from the experience of other practitioners and scholars is invaluable and provides wonderful opportunities to enhance EBP here in Australia and New Zealand.

In December last year, New Zealand Police officially opened the Evidence Based Policing Centre, a venture that would not have been possible without the invaluable partnerships they have developed and matured over the past years. Congratulations to Commissioner Mike Bush and the EBP team in New Zealand. Please take the time to read more about the centre in an article by Project Director, Ms Claire Falck.

The ANZSEBP conference will be held on Thursday 25th and Friday 26th October. This will be the 4th annual conference run by the society and we have gathered some of the leading EBP scholars and practitioners. We have been able to secure Sir Denis O'Connor, Professor Laura Huey, Mr Peter Neyroud CBE, A/Professor Charlotte Gill, Dr Mark Evans OBE, Professor Lorraine Mazerolle, Dr Don Weatherburn, Professor Justin Ready, Dr Sarah Bennett, Dr Joseph Clare and Dr Geoff Barnes.

The multiplicity and experience of our presenters will provide us with a fascinating insight into the current scientific research that assists in guiding best practice in all aspects of policing, around the world. Please register as soon as possible to secure your place, details on the society's website.

I believe that you will enjoy the many fine articles within this journal and find value and relevance that can be applied in the important work that you do.

Kind regards

Stephen Brown *APM M.St (Cantab)*

Chairperson, ANZSEBP

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Professor Colin Rogers

Charles Sturt University (Australia) and the University of South Wales, (UK)

A very warm welcome to the latest edition of the ANZSEBP journal. This edition includes details of the forthcoming ANZSEBP conference to be held on Thursday 25th and Friday 26th October 2018. I hope that many of you will be able to attend this prestigious event, and partake in knowledge exchange with other likeminded individuals. It is also pleasing to note that EBP societies across the world seem to be flourishing and I am particularly pleased that New Zealand Police have opened their centre for EBP. This I feel, demonstrates that the approach is spreading and being adopted by police agencies across the globe as police agencies have to deal with a large number of different and difficult problems in a changing global framework.

Recent events across the world have demonstrated the fact that security and safety, the prime concern for all governments when it comes to their citizens, is not a given everywhere. Economic and political events, along with the rise in use of technology, mean that policing agencies both nationally and internationally are faced with unprecedented challenges and problems each and every day. The use of the evidence based approach is just one part of a major effort in tackling some of these problems, as is the partnership between higher education and policing agencies. In days gone by, this relationship seemed fractious and as Robert Reiner(2010) pointed out, police agencies surrounded themselves with a protective shield, so as not to let outsiders see what went on inside the organisation. Hopefully, those days are gone, but as Huey and Mitchell point out in their article in this journal, academia itself can play a big part in destabilising a partnership with the police. It is interesting to observe that cultural problems exist within organisations other than the police!

In this edition, just to reinforce the fact that the world is changing, and with it police activities, we have articles looking at such subjects as cryptocurrency and third part policing, as well as those looking at more traditional police problems. Altogether, these make up a stimulating and informative edition of the journal, which we hope will provide food for thought and encourage you to apply the evidence based approach in your day to day professional activities.

Professor Colin Rogers

Charles Sturt University (Australia)
and the University of South Wales, (UK)

Reference

Reiner, R, (2010), the Politics of the Police, Oxford, Oxford University Press.



Obed Magny
Board Member of ASEBP

THE ASEBP is going strong leading into 2018. The society has members across local, state and federal law enforcement agencies in nearly all fifty states, as well as many international members. Members have been extremely busy in late 2017 and early 2018, I've provided a synopsis of some of these experiments below, just to keep our friends 'downunder' up-to-date on what ASEBP are doing.

Lt. Jason Potts from the Vallejo Police Department (CA) recently completed a quasi-experimental project with BetaGov where they tested and evaluated data w/a multitude of intervention strategies aimed at deterring auto burglaries. Where many jurisdictions saw 40% increases, they had a 40% decrease. Great job by Potts and BetaGov! Full report will be forthcoming!

As contentious events in the U.S. have unfolded throughout the law enforcement community, officers and community members have increasing concerns about police action. Dr. Obed Magny and three of his colleagues are getting ready to start a major research study on the examination of Secondary Trauma and its Effects on Police and Community Healing. Dr. Magny was the keynote speaker at the MeasureAustin Big Data Community Policing Workshop in Austin, TX where his message was centered on Evidence-Based policing 101. Dr. Magny also participated on a panel at Howard University (Washington D.C.) related to improving police-community relations.

Lt. Chris Vallejo from the Austin Police Department (TX) is working diligently in creating an Evidence-Based policing culture within his organization. The process is in its infancy stage, but he and APD wants to improve performance management system to focus on outcomes versus merely outputs. EBP is one of the underlying mechanisms that will help drive the validity.

ASEBP is actively working within the American Law Enforcement Agencies to increase membership and to encourage more officers to develop police orientated science through research and experimentation. To learn more about ASEBP – please visit our website www.AmericanSEBP.com or follow us on social media – Twitter @ebpolicing, Facebook, and LinkedIn: American Society of Evidence-Based Policing.

Laura Huey



Laura Huey is an Associate Professor of Sociology at the University of Western Ontario, the Director of the Canadian Society of Evidence Based Policing, a Senior Research Fellow at the Police Foundation, a member of the Board of SERENE-RISC and a Senior Researcher and University Representative for the Canadian Network for Research on Terrorism, Security and Society.

She is also the London Police Service Research Fellow and sits on the Canadian Association of Police Governance Research & Policy Committee and the Board of the Canadian Association of Police Educators.

Things are going great here at CAN-SEBP! We've brought on some new people to take on much needed roles – including community outreach (Lorna Ferguson), working group coordinator (Natalie Hiltz), research funding analyst (Jacek Koziarski) and operational support (Shannon Fraser-Hansen (from our partner, the Community Safety Knowledge Alliance). Plus, we've launched or been engaged in the following activities:

1. A mentoring app – CAN SEBP has been eager to explore developing a mentoring program to encourage people within and across agencies to develop, receive feedback and share their ideas using a social networking platform. On March 5th, using whatsapp and hosted by Julia Spence, we launched! Our current members include:
 - Gary Cordner (National Institute of Justice)
 - Roger Pegram (UK SEBP and Greater Manchester Police)
 - Obed Magny (Sacramento Police Department and Magny Solutions)
 - Renee Mitchell (ASEBP and Sacramento Police Department)
 - Chris Vallejo (Austin Police Department)
 - Simon Williams (Western Australia Police Service)
2. Our EBP training sessions continue. In this cycle (which started in October), we have already conducted 5 sessions in 3 different provinces, with more to come! The reception has been highly enthusiastic and has sparked the development of internal EBP working groups within two of our partner agencies.
3. While we remain highly engaged in knowledge mobilization activities, CAN-SEBP has also been heavily focused on research generation. To that end, we have launched or helped to launch several new research initiatives on topics such as first nations policing, police data, opioid messaging, school resource officers, crime prevention, and metrics for evaluating specialized policing work, among others.

So far, 2018 is looking to be a great year for us!

United Kingdom Society of Evidence Based Policing (UKSEBP)

Alex Murray



Assistant Chief Constable Alex Murray graduated from Birmingham University in 1996 and joined West Midlands Police where he worked in CID and uniform roles in the cities of Birmingham, Coventry and Wolverhampton. In 2008, he graduated from Cambridge University, with a Masters degree in Criminology. His thesis developed the understanding of police legitimacy within Muslim communities. He is passionate about involving the community in reducing crime and has led West Midlands Police on preventing violent extremism.

He is the founder, and currently Vice Chair, of the Society of Evidence Based Policing and has introduced randomised control trials into West Midlands Police as a means of understanding what works in reducing harm and providing value for money. In 2014, he received the Superintendents award for Excellence in Policing and has been recognised by George Mason University's Centre for Evidence Based Policing. He is a visiting scholar at Cambridge University, has been associate director of the Cambridge Indian Police Service Training Programme and was part of the UK National Disaster Victim Identification Team.

The Society Of Evidence Based policing is growing in the UK with now over 3000 members which like the Olympics Medal Table, is slightly above that of the membership of the ANZSEBP (we won't talk about the Commonwealth Games though). The aim is to get officers and staff to communicate, use and produce the best research evidence and to do that we have one large SEBP conference and regional co-ordinators work to mobilise policing locally.

The conference this year, in partnership with the Open University was a sell out early with 270 people attending. It also coincided with one of the greatest snowfalls in March – but we managed to continue in any case. Mike Newman from Queensland Police made a great impact talking about the numerous experiments that had taken place in Queensland. The results of trials with Hotels and drug dealing made a great impact as did the world leading research on procedural justice. Barak Ariel from Cambridge highlighted some of the greatest discoveries from evidence based policing, perhaps the most intriguing was how a roll out of Taser had increased the use of force. The Behavioural Insight Team also showed research on the effectiveness on early intervention programmes to prevent violent extremism – it is clear that although there are numerous interventions, many struggle to show any sign of effectiveness.

The challenges in UK policing at the moment make evidence based approaches more necessary than ever. There has been significant rises in knife crime, homicide, domestic abuse and child abuse. All of these areas are subject to contested opinions by politicians, police officers and the community. It takes clear, impartial and empirical research to cut through the debate. Does stop and search work? How does body worn video and procedural justice checklists negate the corrosive effect of police contact when the searches take place? The focus on out-of-court interventions is right, but a clear evaluation of effectiveness is hard.

Often service providers pay a university who engages in a descriptive analysis of what has taken place rather than identifying cause and effect around the intervention. This is why having officers at all levels, supported by the networks provided by SEBP, who can ask intrusive questions and commission research effectively is more important than ever. In the UK we have a strong partner in the College of policing who have a network of EBP champions who do just this. The college commissions national research and makes knowledge of EBP an important factor in career progression.

With The US, Canada, and Australia pushing hard on EBP I would love to see more work published...but because we are busy police employees we often do the research, prepare the presentation and then learn from it as an individual force. Just seeing the quality of evidence that is coming out of Queensland and Western Australia I would love journals like this to be more widely available and to publish police produced research.

Operation Galley:

A Partnership Approach to Reducing Hotel Drug Crime

**Sergeant Paul Morton, ^Lorraine Mazerolle, Kelsy Luengen and *Inspector Mike Newman*

*^University of Queensland *Queensland Police Service*

Introduction

In most police organisations around the world, police detectives are responsible for the reactive investigation and resolution of reported crime. They gather and analyse evidence concerning a crime that has already been committed and draw conclusions based upon the evidence. A successful conclusion typically results in the evidence supporting the prosecution and conviction of an offender. However, this does little to prevent a recurrence of the crime if it is part of a wider crime problem. Instead of purely investigating and solving reported crime, it is proposed that detectives also adopt a proactive, problem-oriented approach and investigate the underlying conditions that give rise to crime, particularly crime problems; that is, detectives should also *'investigate and solve crime problems.'*

In 2016, Queensland Police Service (QPS) detectives from the Brisbane City Criminal Investigation Branch (CIB) considered a proactive, problem-oriented approach to the problem of hotel drug crime. Detectives identified that drug users, suppliers, traffickers, and to a lesser extent producers, were conducting their drug-related activities in city hotels and similar short-stay accommodations.

These included self-contained apartments, motels, and hostels (hereafter collectively referred to as 'hotels'). Police interviews with offenders and human sources (or informants) revealed that the city hotels afforded offenders anonymity, as the hotel locations were removed from their own suburban dwellings. The hotels also offered them mobility, providing opportunities to move from one hotel room to another, colloquially known as 'hotel-hopping'. These circumstances decreased the probability of their activities being detected by police.

Furthermore, these police interviews revealed that the city hotels brought drug suppliers and traffickers closer to their market. This provided them a central location that brought them closer to their customers, including those frequenting the entertainment precincts and music festivals and concerts staged in or near the city. Initial enquiries by detectives revealed that employees of the hotels often failed to recognise and/or did not report the signs of drug offending to police.

These conditions made it easier for drug offenders to engage in hotel drug crime unhindered and perpetuated the drug-supply chain. The drug offending posed a significant risk of harm to hotel employees, customers and visitors. It also had the potential to affect the reputation and business interests of the hotels and Brisbane City as a tourist destination.

In addition, during interviews with offenders specifically, detectives identified that drug-dependant users, including those purchasing drugs from suppliers occupying hotels, reported that they engaged in property related offences in the city in order to fund further illicit drug use. Indeed, detectives observed that the incidence of property offences within hotels seemed to coincide with the detection and arrest of a hotel drug 'dealer'.

Detectives also observed that persons suspected of dealing drugs from hotels were occasionally the victim of robberies, which were typically violent in nature. This occurrence is colloquially referred to as a 'run-in' where offenders will target drug suppliers and traffickers, anticipating that a complaint will not be made to police due to the victim/s' own illegal activities.

The Development of Operation Galley

In response, *Operation Galley* was developed by detectives of the Brisbane City CIB. Detectives pursued a proactive solution that would prevent and reduce hotel drug crime, and indirectly hotel property crime and robbery, as opposed to being reactive and investigating crimes after they have occurred (i.e., ongoing drug supply, trafficking and production, and reported property crime and robbery). Detectives established *Operation Galley* to educate employees of the hotels regarding behaviours associated with drug offending, and to motivate them to be vigilant and report these behaviours to detectives, via a dedicated email address or by telephone.

Detectives believed this reporting arrangement would aid drug supply reduction and complement existing reporting functions, which included 'Report a drug dealer' online reporting, the 'Policelink' contact centre, Crimestoppers, and direct reporting to local police stations. The key advantages of providing a direct line of communication to detectives was that it was more personal and less bureaucratic, which it was believed would facilitate an improved relationship between the hotels and detectives. It would also allow information to be received instantly by detectives, instead of information passing through various units or departments, who could then take immediate enforcement action, thereby improving police capability.

Ultimately, the aim of this approach was to detect and apprehend offenders in possession of illicit drugs at the earliest opportunity, to prevent and reduce the likelihood of undetected and unabated drug supply, trafficking, and production; and to disable, disrupt and deter drug offenders from targeting hotels in the city. It was also decided that employees and managers of the hotels should evict and blacklist drug offenders subject to police enforcement to further facilitate the prevention and reduction of hotel drug crime.

Finally, as part of *Operation Galley*, and in support of illicit drug demand reduction, detectives recommended that offenders who identified as being drug-dependant would be referred to rehabilitative support agencies alongside prosecution.

However, the challenge for detectives was convincing employees and managers of the hotels to accept this responsibility of being alert to suspicious indicators of drug offending, to report information to detectives, and to evict and blacklist offenders from future tenancy at the hotel. Detectives required hotel staff to always be vigilant and to perform a crime prevention and control function, which might ordinarily be considered by them as being outside the scope of their duties and the core business of the hotel.

Designing the Operation Galley Intervention

Following consultation with the University of Queensland, it was anticipated that the formation of a cooperative partnership with the hotels could be achieved by employing the principles of third party policing and procedural justice. It was proposed that these concepts be embedded into detectives' correspondence and interactions with hotel staff to facilitate their willing compliance.

Third Party Policing

Third party policing is a problem-solving approach that leverages third parties to prevent crime and disorder (Weisburd & Majmundar 2017). It is defined as police efforts to persuade or coerce organisations or non-offending persons (such as public housing agencies, property owners, parents, health and building inspectors, and business owners) to take actions that might be considered outside the scope of their routine activities, and which are designed to prevent crime or reduce crime problems (Buerger & Mazerolle 1998). Third party policing expands, and potentially optimises, the capacity of police to prevent crime or reduce crime problems via two key mechanisms, namely: (1) creating a partnership between police and non-police entities, that (2) harnesses the entity's resources and legal powers, which are often under-utilised or dormant, at least from a crime control perspective (Buerger & Mazerolle 1998; Mazerolle & Ransley 2005; Mazerolle & Roehl 1998).

Police partnerships with entities that possess a legal mandate (i.e. an existing power or sanction from legislation, regulation, contract, or other source) are likely to make better crime prevention and control partners than those lacking access to a legal lever (Mazerolle et al. 2016), and for this reason third party policing is more effective than the traditional partnership policing model. In short, by partnering with and encouraging the third party to use the resources and legal powers available to them in respect of crime prevention and control, police create or enhance crime control 'guardians' in locations or situations where crime control guardianship was previously absent or non-effective (Mazerolle & Ransley 2005).

Procedural Justice

Procedural justice refers to how police engage with members of the public, and how their behaviour can influence citizen's perceptions of police. It is integral to the perceived fairness of the police and the legitimacy of their actions. Procedural justice comprises four key components namely: treating people with dignity and respect (individuals want to be treated with dignity and respect), conveying trustworthy motives (people are more likely to view an interaction as fair when they trust the motives of the police and show concern for the interests of parties involved), giving voice to the participants (individuals need to participate in the decision process), and being neutral in decision making (police need to be impartial and transparent) (Mazerolle et al. 2014).

A procedurally just dialogue facilitates co-operation that is typified by voluntary compliance, increased confidence in and satisfaction with police, and enhanced perceptions of procedural justice and police legitimacy (Mazerolle et al. 2014).

Production of Operation Galley Materials

Detectives, University of Queensland researchers, QFES officers, and members of the QPS Crime Prevention Unit collaborated in designing the way in which detectives would interact with hotel staff to establish and foster the third party policing partnership. A letter and a dialogue (scripts) for *Operation Galley* visits between detectives and hotel staff drew from the theories of third party policing and procedural justice. These materials aimed to persuade hotel employees and managers to accept responsibility for the prevention and reduction of hotel drug crime by reporting suspicious indicators to detectives via email or telephone. The letter and scripts referenced legislation from the Drugs Misuse Act (1986) (Qld), the *Work Health and Safety Act (2011)* (Qld), and the *Fire and Emergency Services Act (1990)* (Qld)¹. Furthermore, they incorporated the four key components of procedural justice. It was anticipated that a procedurally just dialogue would ensure willing compliance and facilitate the desired cooperative partnership.

The intervention therefore, operationalised the following key principles:

1. Treating hotel staff with dignity and respect
2. Conveying trustworthy motives
3. Giving 'voice' to hotel staff to participate in the conversation
4. Being neutral and non-accusatorial about the potential drug offending in the hotel
5. Conveying the message that this is a partnership, collaborative effort to deal with the problem
6. Being clear about the legal responsibilities of the hotel employees and managers
7. Providing clear information as to what it is the police need from hotel staff.

Evaluating the Operation Galley Intervention

With a view to informing and directing police policy and practice, detectives sought to evaluate the effectiveness of *Operation Galley*. With the guidance of the University of Queensland, a randomised controlled trial was implemented. This scientific approach is in line with the framework of evidence-based policing, which focuses on making decisions about 'what works' in policing; that is, which practices and strategies accomplish police missions most cost-effectively (Sherman 2013).

Moreover, in contrast to basing decisions on theory, assumption, tradition, or convention, an evidence-based approach 'tests' hypotheses with empirical research findings, and randomised controlled trials are key to evidence-based testing (Sherman 2013).

In designing the randomised controlled trial for *Operation Galley*, 120 hotels in the city centre of Brisbane, encompassing Brisbane City, Spring Hill and Fortitude Valley, were identified and rank ordered by their size, rating, estimated degree of suspicious behaviour, and their location. Based on these key characteristics, 40 matched triplets were created (a variation on the matched pair design). The three hotels per triplet were then randomly assigned to one of the below conditions or groups, so each group comprised 40 hotels.

Types of Intervention

Treatment Group 1: Letter-Only Group

The Letter-Only intervention involved detectives sending hotel management a procedurally just scripted introductory letter, with a request to report suspicious behaviours via the *Operation Galley* dedicated email account or telephone number and outlining the objectives of the operation. This included third party policing information regarding the civil and criminal liabilities of the hotel and its staff should drug offending occur on the premises.

Treatment Group 2: Operation Galley

The intervention for the *Operation Galley* treatment group comprised the same introductory letter, followed by a pre-arranged visit from a Combined Agency Response Team (CART) consisting of detectives and Queensland Fire and Emergency Services (QFES) officers. The CART visit sought to engage hotel employees and managers in a partnership approach, with detectives and QFES officers explaining the laws and hotel staff obligations concerning drug offending in hotel rooms (including drug misuse, health and safety, and fire hazard risks) and seeking their commitment to notifying detectives about suspicious drug activity to the *Operation Galley* email account and telephone number².

Control Group: Business-as-Usual (BAU) Group

The BAU group received the usual policing response but were not provided with the information contained in the letter, they did not receive the *Operation Galley* intervention, and they had no consultation or engagement from the CART.

The Intervention Period

The intervention period commenced on 27 March 2017 and concluded on 4 June 2017, with the letters sent and the visits completed by this date. During the visits, detectives met with hotel employees and managers in person and provided advice regarding behaviours associated with drug offending. Detectives also informed them of their legal powers and obligations, in line with third party policing. Legislation pursuant to the *Drug Misuse Act (1986) (Qld)*, the *Work Health and Safety Act (2011) (Qld)*, and the *Fire and Emergency Services Act (1990) (Qld)* was discussed. The key messages were that hotel staff had a legislative power and obligation to report suspected drug offending, especially in the context of ensuring a safe environment for hotel employees, customers and visitors, and they should evict and blacklist offending tenants. The visits were delivered in a procedurally just manner.

This was followed by a post-intervention period, from 5 June 2017 to 1 November 2017. During this period, the *Operation Galley* group had an additional visit by a detective to act as a refresher of the content. Data from a pre-intervention period of 1 November 2015 to 26 March 2017 was also considered as part of the evaluation.

Outcome Measures and Data

In order to measure the impact of the three groups, data from the *Operation Galley* email account and records, and the Queensland Police Records and Information Management Exchange (QPRIME) were collected. In addition, a consumer sentiment analysis from TripAdvisor was undertaken and hotel employees and managers were surveyed to obtain perception data. The following outcome measures were then analysed utilising regression modelling and comparing mean differences:

1. Notifications from the hotels to detectives about suspicious drug activity (intervention and post-intervention only)
2. Drug Crime Reports – *Operation Galley* and non-*Operation Galley* reports (pre- to post- intervention)
3. Drug arrests (offenders) – *Operation Galley* and non-*Operation Galley* (intervention and post-intervention only)
4. Drug charges – *Operation Galley* and non-*Operation Galley* (intervention and post-intervention only)
5. Drug Search Warrants Executed – *Operation Galley* and non-*Operation Galley* (pre- to post-intervention)
6. Consumer sentiments (pre- to post-intervention)
7. Perceptions of hotel management regarding crime, satisfaction with police, fairness (post-intervention only).

Results

Results of Queensland Police Service data found:

1. *Operation Galley* produced six and a half times more notifications to detectives about drug problems than the hotels in the Letter group.
2. *Operation Galley* produced 4.67 times more drug crime reports than the Letter and BAU groups.

3. *Operation Galley* produced more drug arrests (offenders) and charges than the Letter and BAU groups. During the randomised controlled trial period, *Operation Galley* produced 0.60 more arrests per hotel and 3.15 more charges per hotel than the Letter group hotels.
4. *Operation Galley* produced 10 times more search warrants than the BAU group during the intervention period. During the post-intervention period, *Operation Galley* produced four times more search warrants than the Letter condition, and 12 times more search warrants than the BAU condition.
5. The rate of *Operation Galley* notifications and subsequent enforcement activities decreased during the post-intervention period compared to the intervention period. This suggests a decrease in drug market activity in and around the *Operation Galley* hotels.
6. The Letter condition did not achieve much more than the BAU condition, suggesting that a letter is not enough to nudge or stimulate a partnership between police and hotel staff.

Results from the consumer sentiment analysis from TripAdvisor indicated:

1. Favourable consumer sentiment, between the pre-intervention period and combined intervention and post-intervention periods, saw a small but statistically insignificant increase for the *Operation Galley* and Letter groups.
2. Hotel ratings across the conditions were not impacted by either of the three conditions included in the *Operation Galley* trial.

Results from the hotel surveys found:

1. Hotel staff in all three groups reported similar perceptions and sentiments pertaining to drug use, signs of disorder, awareness of suspicious drug related activities, and reporting practices.
2. Hotel staff in all three groups, in the last six months, perceived an increase in drug use, public drinking, and loitering, while noticing a decrease in prostitution and neglected buildings. There were no discernible differences between the *Operation Galley*, Letter and BAU groups.
3. Almost half of all hotel employees surveyed failed to correctly identify suspicious behavioural indicators of drug use.
4. Hotel staff in all three groups overwhelmingly agreed that they were on the lookout, reporting and blacklisting clients they suspected were involved in drug-related activities.

Conclusion

As an intervention, *Operation Galley* motivated hotel employees and managers to better engage with police by detecting and notifying detectives of drug-related activities and behaviour. The evaluation results of QPS data show that *Operation Galley* produced more law enforcement activities in the short run that came in response to a significant increase in notifications.

The longer-term reduction in notifications suggests that there was some level of drug market activity suppression in the *Operation Galley* hotels over time. Results of the survey may be indicative that hotel staff were more receptive to the method of reporting, rather than the identification of behavioural indicators of drug-related activity.

The *Operation Galley* treatment or 'detective–community engagement model' has now been rolled-out to all hotels in the City Valley Crime Group's area of responsibility, encompassing the city-centre of Brisbane.

It continues to generate notifications concerning suspicious drug-related behaviours, leading to the detection and arrest of drug offenders. However, given the results from the intervention to post-intervention period, it is recommended that police continually foster the partnership with and educate hotel staff as part of an ongoing 'maintenance' program.

The success of *Operation Galley* has demonstrated the value in police detectives' adopting a problem-oriented approach. Whilst it represents somewhat of a paradigm shift for detectives, who traditionally investigate crimes after they have been committed, *Operation Galley* has shown that detectives can play a significant role in proactively preventing and reducing crime. This is achieved by 'investigating and solving crime problems' by addressing the underlying conditions that give rise to crime.

Finally, detectives' engagement with evidence-based policing should be encouraged so that interventions can be scientifically proven to be effective. Going forward, it is anticipated that *Operation Galley* will be the first of many evidence-based policing initiatives to be implemented by detectives of the Brisbane City CIB and the QPS.

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End Notes

- Section 11 of the *Drugs Misuse Act (1986) (Qld)* 'Permitting use of place' states a person who, being the occupier or concerned in the management or control of a place, permits the place to be used for the commission of a drug offence is guilty of a crime;
Divisions 5 and 6 of *Work Health and Safety Act (2011) (Qld)* state it is a person's duty to exercise due diligence and comply with health and safety duties and obligations and that a person may be charged with an offence for failing to do so;
Section 104D of the *Fire and Emergency Services Act (1990) (Qld)* 'Occupier of building to maintain prescribed fire safety installation' states the occupier of a building must maintain at all times every prescribed fire safety installation to a standard of safety and reliability or otherwise be charged with an offence.
- Two treatment groups were used to assess the cost versus the benefit, which was important from a police operations perspective, with the *Operation Galley* treatment group being the most resource intensive and therefore most costly to implement by detectives.

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Cryptocurrency: Law Enforcement Challenges and Opportunities. A Risk Perspective

Arun Senthilkumar and Naomi Graham

Australian Federal Police

Law enforcement contends with changing threats and new technologies, which produce new crimes and new communities, all of which create new challenges, uncertainty and opportunities for policing. By identifying disruptive technologies such as cryptocurrency and considering the associated emerging risks and opportunities in collaboration with the community it seeks to police, law enforcement can ultimately increase its ability to disrupt crime and prevent it from being committed.

Risk is defined as 'the effect of uncertainty on objectives' and risk management as the 'coordinated activities to direct and control an organisation with regard to risk' (International Organization for Standardization 2018). When managed well, considered risks contribute to innovative approaches to fighting crime and ensure efficient and effective delivery of law enforcement, as well as the safety and well-being of the broader community (Australian Federal Police 2017).

With this in mind, law enforcement has the opportunity through risk management and evidence-based policing activities to reduce and at times prevent technology-enabled crime from being committed. This approach sanctifies one of Sir Robert Peel's (1829) principles of law enforcement even in this 21st century digital age of modern policing: Prevent crime and disorder, as an alternative to their repression by military force and severity of legal punishment.

What is cryptocurrency?

Cryptocurrency is a decentralised digital or virtual currency (Brown 2016) created and managed through the use of advanced encryption techniques known as cryptography (Investopedia n.d.). It is becoming a common medium of exchange in legal and illegal trade: it facilitates money laundering and tax evasion, and is also used as a store of value in crimes such as extortion, blackmail and fraud (N8 Policing Research Partnership 2017). Cryptocurrencies are outside the influence of centralised control/regulatory bodies such as banks and governments, and are easily transferable (Brown 2016).

Most coins have an official wallet, a secure digital wallet used to store, send and receive digital currency; however, you don't actually need a wallet to use cryptocurrencies as you can have your coins held on an exchange or on your behalf (you don't own the private key). You are still able to send coins from this account to another address using your password to get onto the exchange only. You can also keep your private key on paper. Cryptocurrency is gaining popularity because of its Public-Key Cryptography security feature, which provides secure transactions, user authentications and anonymity (The Economic Times n.d.). Public-Key Cryptography is where two related keys, public and private, are generated and used. The public key may be freely distributed while its paired private key remains a secret. The public encryption key is used to send the transaction, and the private decryption key is used to collect the transaction (The Economic Times).

Cryptocurrency and its relationship to blockchain technology

The cryptocurrency uses blockchain technology, which is a decentralised ledger of all transactions across a peer-to-peer network. Using this technology, participants can choose to prioritise their transactions in accordance with their increasing technological popularity; however, this comes at a cost. The data structure provided to these ledgers can be copied across all computers running that cryptocurrency software to provide verification for the transactions. A lot of cryptocurrencies do use the proof of work (PoW) system whereby they mine for coins and verify the blockchain (e.g. bitcoin); however, there are many types of coins that use a different system called proof of stake (PoS) or some variation of that model. Ethereum (an open-source, blockchain-based software platform) plans to move from PoW to PoS.

Cryptocurrency-related crimes

Cryptocurrencies can facilitate traditional crimes such as drug dealing, identity theft, money laundering, extortion, blackmail and fraud (N8 Policing Research Partnership 2017). There is also an increasing number of new cryptocurrency-related crimes such as stolen wallets, botnet mining, ransomware, extortion on data breaches, and blackmail with the threat of distributed denial of service (Nigh & Pelker 2015). After the cryptocurrency is stolen, acquired or transacted through illegal or criminal means, the offenders conceal their transactions through various techniques such as the use of a 'tumbler' or 'mixing' service, which takes the cryptocurrency from many users, routes it through a complex funding path and redistributes it so that it no longer can be readily traced to a specific source (Nigh & Pelker).

If cryptocurrency companies don't operate legally under appropriate regulations by implementing effective anti-money-laundering programs, they leave themselves vulnerable to exploitation by criminals and terrorists.

Cryptocurrency challenges and risks faced by law enforcement

Some challenges faced by law enforcement in dealing with the cryptocurrencies are well documented. They may include lack of

- experience in conducting investigations and prosecutions of crimes involving cryptocurrencies
- knowledge of the technology underlying cryptocurrencies, especially the blockchain principle
- access to user-friendly private company track and trace tools
- knowledge and proof of what happened beyond the reasonable doubt test
- verification of what occurred to the degree in which the courts will accept the evidence (N8 Policing Research Partnership 2017).

Law enforcement will not have any real indication as to how the judiciary will treat digital currency seizures until a seizure is heavily contested.

There is a significant knowledge gap, lack of tools and lack of experience across law enforcement, from frontline officers to federal agencies, in identifying cryptocurrency activity, both physically and digitally (N8 Policing Research Partnership 2017). Although there are specialists with extensive experience dealing in cryptocurrencies, there remains a large gap between those specialists and other officers generally who are not equipped with the skills necessary to seize and restrain cryptocurrency.

This, along with officers not knowing what to look for, may raise the risk of lost opportunities in seizing cryptocurrencies from the criminals. Fiat gateways like exchanges and over-the-counter set-ups like localbitcoins.com are funnels that can be targeted by law enforcement.

The greatest challenge for law enforcement is linking the cryptocurrency addresses to a real person, which raises the risk of investigators not being able to identify the person behind the crime. Separating legitimate crypto transactions from illegitimate transactions is an issue in that police are reluctant to seize currencies in situations where ownership is grey (for example, pools). Although this may be true, if an account is used in illegal activity, then it may be tainted and subject to seizure.

Another challenge is identifying the origin of the criminal activity. If the exchange service or wallet service provider used by the victim is in a foreign jurisdiction that does not have any arrangements to share information, there is the risk of investigators not being able to obtain the necessary information (Nigh & Pelker 2015).

Current challenges and risks in seizure and storage of crypto currencies for evidentiary purpose and beyond

The lack of guidelines, policies, legislations and standardised practices in the way cryptocurrencies are seized and stored during an investigation raises the following risks:

- The investigators when on a warrant may not seize the cryptocurrency when they find a digital wallet or a key or address if:
 - they don't have the adequate knowledge of what they are looking at
 - they don't have the available techniques to connect the address/key to a particular user
 - they are not sure about the legal risks when seizing cryptocurrencies
 - it is difficult to see what transactions stem from legitimate reasons versus transactions which lead to illegal activity.
- The seized cryptocurrency wallet may not have any monetary value or evidentiary value after seizing because
 - the crypto currency could be transferred by a third party using a backup wallet immediately after the seizure or before the investigation finishes (Nigh & Pelker 2015)
 - the volatile nature of the cryptocurrency, as its value is determined by supply and demand and not linked to any national economy, means that it can become worthless in a

short period of time (Brown 2016) and, equally important, the dollar value of the coin at any time is irrelevant to the evidentiary value—if a coin is used as payment or to commit a crime, it is still evidence, and if a value is required, the value at the time of the transfer could be used.

- The lack of direction in the process of seizing cryptocurrency and the high monetary value of the cryptocurrency mean that there are no controls in place to prevent the possibility of law enforcement officials' integrity being compromised. Giving way to temptation, the officer could transfer the content of the seized digital wallet to his or her private digital wallet, similar to the incident where Carl Force, the United States Drug Enforcement Administration agent, stole bitcoins during the Silk Road case investigation (Weinstein 2015).

Opportunities for law enforcement with blockchain

Despite the enormous challenges created by the cryptocurrencies, along with blockchain, they can provide significant advantages for law enforcement. Investigations into cybercrime, child exploitation and other crimes involving the internet can take months or years to follow the trail of criminal activity.

The biggest hurdle in an investigation involving cybercrime is the retention of the data files or transactions involved in the crime because of the inconsistent practices of the internet service providers in retaining customer transaction data. Data retention is not a problem with blockchain because the records are permanent and law enforcement can access them at any point in time (Weinstein 2015).

If the investigator can connect a cryptocurrency address to a particular user, then the investigator can identify and trace all the transactions linked to that address because the cryptocurrency address is just an account number of that particular user.

For law enforcement, obtaining information such as transaction details from a third party such as banks and internet service providers can be a tedious, lengthy process. The blockchain does not have such an issue. Law enforcement can access the blockchain and trace transaction histories without the restriction of any regulation or legislation because the blockchain is a public source and is freely accessible (Weinstein 2015).

Crimes that are global in nature are becoming common; these crimes have little regard for national borders. The offenders either use services or conduct transactions overseas and, in some cases, the evidence of the crime is across the national border, creating investigative challenges and jurisdictional hurdles. The investigation in these cases relies on international cooperation (Nigh & Pelker 2015).

When evidence for the crime is in another country's jurisdiction, law enforcement has to go through the potentially cumbersome and lengthy mutual assistance request process to seek the assistance of the foreign law enforcement to obtain that evidence. The blockchain does not have that issue because it has no borders and all transactions on it are available at all times from anywhere in the world (Weinstein 2015).

The future could see blockchain technology being used to verify documents or even providing the opportunity for it to be used for evidence tracking across global jurisdictions.

Emerging risks from cryptocurrencies and blockchain

The cryptocurrency factor is beginning to influence physical, in-person crimes such as mugging and kidnapping. In the last six months, there have been incidents where gangs of thieves have held up wealthy cryptocurrency investors. In one such instance, in November 2017 a Turkish businessman was mugged and robbed of US\$2.83 million from his bitcoin digital wallet. In a kidnapping in New York in December 2017, US\$1.8 million in cryptocurrency ether was stolen. In another kidnapping in December 2017 in Ukraine, US\$1 million in bitcoin was stolen.

In January 2018 there were reports of gunpoint cryptocurrency robberies in Hong Kong and Canada. Criminals are starting to realise that cryptocurrencies are highly liquid assets they can steal. There have been increases in new bitcoin-stealing malware tools, with attacks most commonly aimed at bitcoin wallets and the compromise of private keys (BAE Systems 2018). If the criminals start to find a way to identify individuals who have invested in cryptocurrency, either by infecting the victim's devices with malware or through any other means, robbing them for their cryptocurrency will be considered a quick and easy operation with a huge payday and lower risk than any other kind of robbery (Organized Crime and Corruption Reporting Project 2018). With malware and robbery in mind, a lot of this can be overcome by people being educated to take sensible security controls like using hardware wallets, keeping private keys offline and entering private keys into web wallets while offline before connecting to the internet.

German researchers have discovered that bitcoin's blockchain is being used to store, and link to, child abuse imagery. The blockchain is the open-source, distributed ledger that records every bitcoin transaction but can also be used to store links and files. Researchers from the RWTH Aachen University in Germany found 274 links to child abuse content, 142 of which linked to dark web services. The design of the blockchain means that the technology could be used for sharing child sexual abuse images and as a safe haven for hosting such criminal data. However, it would take a great deal of effort to fish out and decode the said links, which are gibberish text strings. The low block size of 1 megabyte of bitcoin makes it difficult to fit any images onto the blockchain, which is why there are mainly links. This presents an opportunity for investigators. There is also the possibility of malware being injected and permanently hosted in the blockchain with no means available to wipe this malicious data (Gibbs 2018).

Conclusion

As the growing technology increases the challenges and uncertainty for law enforcement, lessons are always being learned and risks can be turned into opportunities. We can all play a role in contributing to identifying these opportunities, in particular through the effective use of risk management and evidence-based activities in law enforcement. Next time you consider how to prevent crime via the use of cryptocurrencies or more broadly across law enforcement, think about how you can improve the identification of opportunities and threats to reduce the risk events that could give rise to the impacts on your investigation and objectives.

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Aim One: Increased use of best available research evidence to solve policing problems:

- Raise awareness of the value of evidence-based practice.
- Provide access to research tools and guidance.
- Advocate evidence-based practice across all policing bodies.
- Provide a forum for police professional researchers.

Aim Two: The production of new research evidence by police practitioners and researchers:

- Support police practitioners to undertake research projects.
- Support police practitioners to access research expertise.
- Support researchers to access police data.
- Facilitate awareness of ongoing police research projects.

Aim Three: Communication of research evidence to police practitioners and the public:

- Disseminate police-based research to different audiences.
- Present the implication of research findings for policing practice.

Article Submission Guidelines

Articles must be written and presented in English.

Articles are evaluated according to the following criteria:

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Abstract must not exceed 300 words and must include a title.

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Use standard abbreviations only. Within the body of the abstract, when using abbreviations spell out the name in full at the first mention and follow with the abbreviation thereafter. Abbreviations may be used in the title, provided the name in full is outlined in the body of the abstract.

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New Zealand Evidence Based Policing Centre

Claire Falck

Policing in New Zealand took a bold step into the future late last year, when an Evidence Based Policing Centre was opened in the country's capital, Wellington.

The Centre is a joint partnership between New Zealand Police, the University of Waikato, the Institute of Environmental Science and Research (ESR), and New Zealand Police's strategic partner, Vodafone New Zealand. The partnership creates a multi-disciplinary team with access to the latest research and most current data to design, test, and implement new tools, processes, and ideas, to help prevent crime and better protect the public.



The Centre is staffed by New Zealand Police's relocated National Research and Evaluation team, alongside researchers from the University of Waikato, and ESR. A showpiece for evidence-based policing in New Zealand, the centre offers an open environment for collaboration on research, evaluation, and innovation.

The Centre uses information, crime science, and problem-solving methods to ensure proven approaches and tactics guide and inform the choices of frontline staff. Evidence-based policing builds on the existing skills, knowledge, and experience of police staff, and by combining it with ESR's forensic science expertise and University of Waikato's research excellence, is able to provide police with appropriate evidence to inform their professional judgment, helping them to make the right choices while on the frontline.

The Centre also seeks to partner with other government agencies and research institutions to improve outcomes across the entire justice sector. By improving police performance through making informed decisions with demonstrably better outcomes, public trust and confidence in police will increase.



New Zealand Police Commissioner Mike Bush says the Centre is an opportunity for police to make operational decisions based on the best possible research, data, and knowledge of 'what works':

'Our people are and will always be our greatest asset. But we want to make sure that when they're making decisions, they're basing them on the most up-to-date information, the latest research and the best crime science.'

'The establishment of the Evidence Based Policing Centre gives us the opportunity to partner with others to provide the best evidence, analytics, and practice design to assist with that.'

The University of Waikato and ESR will have access to the work of the police, allowing the partners to apply cross-disciplinary research to achieve impact and benefit to New Zealand. Police will benefit from the centre by generating and using research findings to help enhance its work.

Work has now begun on development of an operating model to embed evidence-based policing within New Zealand Police. Critical to this work is a whole-of-organisation approach that has seen widespread consultation with senior representatives from a cross-section of New Zealand Police.

The intent is to embed an evidence base into all of New Zealand Police's operations, setting the organisation up as a true learning organisation. For evidence-based policing to be successful, its reach needs to extend beyond the Evidence Based Policing Centre, to become part of the culture of the organisation.

There is a significant cultural change dimension to the implementation, and an opportunity to create generational change by imbedding evidence-based policing within the training of new recruits through the Royal New Zealand Police College.

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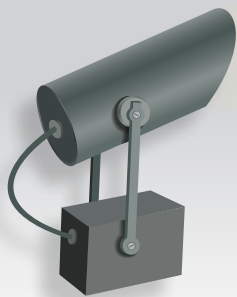
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Each issue Police Science will focus on justifications efforts within evidence based policing

Evidence Based Policing Capabilities Boosted in the AFP

Assistant Commissioner Debbie Platz, Crime Operations, AFP

2018 will see the AFP significantly bolstering its Evidence Based Policing capabilities through scholarships to the Cambridge University program for three AFP Officers and a roll out across AFP offices of Evidence Based Policing workshops conducted in conjunction with the University of Queensland.

Recognizing the critical tool that EBP provides to police leaders in their leadership decisions in appropriately targeting activities and directing resources efficiently, Commissioner Andrew Colvin hosted the ANZSEBP Board in October last year. Deputy Commissioner Close attended a valuable session and said 'the AFP will broaden its knowledge around evidence-based policing and foster the capacity for in-house evaluations into the future – making the AFP more effective and efficient in our policing role to keep Australia safe'.

In March 2018, a significant boost for the AFP's pursuit to consolidate and build their EBP capability and in-house expertise, was warmly received when Cambridge University for the first time awarded two AFP Officers the 2018/19 Wakefield Scholarship to study a *Master of Studies in Applied Criminology and Police Management* in the United Kingdom. The Masters is specifically designed to provide training for senior police officers in the study of crime and harm-reduction issues, with a strong emphasis on evidence-based policy and practice. The two successful Wakefield recipients, Detective Superintendent Paula Hudson and Federal Agent Marita Muller, will attend six residential components over two years in the United Kingdom, Hong Kong and Sydney Australia.

The Cambridge Masters is an up-to-date and high-quality course, introducing senior police officers and suitably qualified others to some of the most important theory and research in applied criminology and policing management.

Detective Superintendent Paula Hudson stated that 'whilst EBP can be applied to many aspects of AFP business, I see particular value and an exciting opportunity in this scholarship to apply it to achieve maximum operational impact in the disruption and prevention context



in respect to a high volume based crime issue such as airstream narcotic importations. I will be providing return on investment for the AFP through this research to inform strategies and influence our priorities to make best use of finite operational resources.'

To complement the two AFP Wakefield Scholarship recipients on the Cambridge Masters, the AFP has also just joined with Axon to fund another senior AFP Officer to undertake the Masters in 2018/19 with a specific remit to undertake an evidence-based evaluation of the AFP's cyber safety 'ThinkUKnow' program.

Assistant Commissioner Debbie Platz, who heads the AFP's Crime Operations Command and Graduate of the Cambridge University Master's Program and inductee in the George Mason University Centre for Evidence-Based Crime Policy, will be leading a roll out of an EBP workshops for the AFP which will be delivered to sworn and professional staff. The program to be delivered in conjunction with University of Queensland Professor of Criminology Lorraine Mazerolle and UQ Visiting Police Fellow from the Queensland Police Service will:

- Provide an introduction to evidence based policing and its importance to policing;
- Involve short presentations regarding projects conducted in other jurisdictions that have applicability to the AFP;
- Introduction to research and brainstorm ideas for study.

On the rollout of the training program Assistant Commissioner Debbie Platz stated that 'while real-life experience will always be valuable, evidence-based policing is about combining our experience with scientific methods to test our approaches and identify successful interventions. EBP is not easy – unless you have a research background which many of us don't. It is on this basis that the AFP recognizes the need to upskill our people with regards to research starting through these workshops'.

I am very pleased to advise you that the 2018 ANZSEBP conference will be held on Thursday 25th and Friday 26th October. This will be the 4th annual conference run by the society and we have gathered some of the leading EBP scholars and practitioners. We have been able to secure Sir Denis O'Connor, Professor Laura Huey, Mr Peter Neyroud CBE, A/Professor Charlotte Gill, Dr Mark Evans OBE, Professor Lorraine Mazerolle, Dr Don Weatherburn, Professor Justin Ready, Dr Sarah Bennett, Dr Joseph Clare and Dr Geoff Barnes.

The multiplicity and experience of our presenters will provide us with a fascinating insight into the current scientific research that assists in guiding best practice in all aspects of policing, around the world. Please register as soon as possible to secure your place, details on the society's website.

Deputy Commissioner Stephen Brown
APM M.St (Cantab) Chairperson, ANZSEBP

Date

Thursday 25th – Friday 26th October 2018

Location

Australian Institute of Police Management
Collins Beach Road, Manly, NSW

Delegate Registration

\$650 per person

Accommodation

\$250 per night

Registration & Payment Portal

Conference Registration and Payment
<https://payments.uq.edu.au/OneStopWeb.aspx/transform.aspx?TRAN-TYPE=W01ISSR11>

Short Shots Presentations

Nominations are invited from members wishing to submit 10 min presentation at the Conference. See [Short Shot Flyer](#)

Presenters



Sir Denis O'Connor CBE
University of Cambridge

Professor Laura Huey
University of Ontario



Professor Lorraine Mazerolle
University of Queensland

D/Commissioner Brown
Western Australia Police



D/Commissioner Loy
New South Wales Police

Dr Peter Neyroud CBE
University of Cambridge



A/Commissioner Platz
Australian Federal Police

A/Professor Charlotte Gill
George Mason University



A/Commissioner Lanyon
New South Wales Police

A/Professor Justin Ready
Griffith University



Mr Mark Evans OBE
New Zealand Police

Dr Sarah Bennett
University of Queensland



Superintendent Cowan
Victoria Police

Dr Geoff Barnes
Western Australia Police



Dr Don Weatherburn
NSW BOCSAR

Ms Patricia Ward
New South Wales Police



Dr Joe Clare
University of Western Australia

Short Shot Presentations

I am very pleased to advise you that the *2018 ANZSEBP Conference* will be held on Thursday 25th and Friday 26th October. This will be the 4th annual conference run by the society and we have gathered some of the leading EBP scholars and practitioners.

In keeping with our previous conference format, there will be the opportunity for our members to provide a “Short Shot” presentation, no longer than 10 minutes on completed or current research/experiments in policing. It is suggested that authors also provide on their research/experiment for publication in the next edition of the *Police Science Journal*.

All abstracts will be peer reviewed and authors will be notified as to whether the presentation has been accepted. Conference, travel and accommodation costs are at the author's expense.

Looking forward to seeing you at AIPM in October.

Deputy Commissioner Stephen Brown APM M.St (Cantab)
Chairperson, ANZSEBP

Key Dates

Abstract Submission:	Friday 1 st June 2018
Author Notification:	Friday 22 June 2018
Presentation Submission:	Monday 1 October 2018

Inspector Corey Allen

We watch the international police scene and from a distance the issues stemming from the loss of police trust and legitimacy, and damaged police relationships with the community in the United States are obvious. The role of police legitimacy, natural justice and procedural justice are well documented and there is little to dispute the benefits of a police service that works with the community, with support, in partnership to prevent harm wherever it may present to police on the street.

It would be difficult to argue against the premise that community trust would improve if police routinely employed procedural justice principles during their interactions with the community (and with each other for that matter) (Rahr & Rice 2015).

The role of culture in this dynamic has never been more important. What is the true culture of Australian police? Is it different from the culture of American policing, perhaps as different as the level of risk and threat? Australian police culture is as different as our heritage and community expectations.

Actively bolstered by social media police culture movements, Australian police are at risk of identifying with and subscribing to an unhealthy belief system that can contribute to division between police and the community. 'Sheepdog' and the 'Thin Blue Line' (TBL) are terms that have found favour amongst Australian police and emergency services.

The TBL concept first appeared in a 1966 documentary and reflects the conservative world view of police culture. Police see themselves positioned socially as a thin blue line besieged by both the criminal world and liberal ideology (Moskos 2014). The TBL is viewed as a defence against both personal and existential threats, prompting a state of hypervigilance and in effect defining social groups in overly simplistic but appealing terms.

The rise of the sheepdog mentality takes this a step further, providing an appealing set of natural sounding comparisons between 'The Flock', 'Sheepdogs' and the 'Wolves'. Supported by the proliferation of patches and memorabilia, blogs and social media, this culture movement is adept at quickly identifying supporting examples from the United States and sharing and linking them to Australian TBL sites. The risk and operating environment in the United States is significantly different from that faced by Australian law enforcement. With that in mind, it is difficult to support the idea that Australian police are under siege.

Emotional attachment to the sheepdog mindset permits police to perceive themselves as separate from the community, justified by the belief they have to protect the community aka 'the sheep' from the evil wolves. Silverii (2013), a US Police Chief, credits the sheepdog analogy with helping to solidify officer ideology and their position and role in society. The sheep are made up of 'the majority of our population...good honest people who would never intentionally harm another without provocation.' The wolves represent the 'psychopathic victimisers, openly preying on the peace-seeking sheep.' Police officers are then by default not sheep, not part of the community, not wolves either, but the sheep dogs 'naturally inclined towards violent attack...remaining in the fringe...exclusion, solitude and misunderstanding are the sheepdogs sacrifices.'

If this is the dominant mindset and a true reflection of where police perceive themselves to be positioned, any attempt at community partnership or collaboration will be stifled.

How could police hope to engage and work with the community when they perceive themselves as separate, as superior, as protectors of the helpless sheep? This social positioning is potentially unhealthy. Rufo (2016) makes strong links between negative police culture and police suicide.

The TBL social media sites are increasingly associating the role of police with popular cartoon/movie imagery such as the 'punisher' symbol. The Punisher, a fictional character created for Marvel comics, is a vigilante who employs murder, kidnapping, extortion, coercion, threats of violence and torture to fight crime (Punisher Wiki 2018). The symbol gained popular use in US forces in the Middle East and has proliferated throughout the American law enforcement community, perhaps in part due to the large number of ex-service personnel who make that career transition.

Kentucky police vehicles at one stage used the punisher logo as part of the official livery for police vehicles, with the skull image prominently displayed on the bonnet. The logo has found its way onto 'blue lives matter' marketing materials, hoodies, t shirts and mugs. The logo has also found its way onto Australian patches, clothing and Thin Blue Line Australia social media sites. Do Australian police see themselves as 'punishers'?

Rahr and Rice (2015) are amongst many who had identified the drift away from Peelian principles and the growth of the warrior culture in the United States. Driven by misapplied enforcement focused tactics, a strategy born from tactical precedence, Rahr and Rice (2015) pose that American law enforcement has drifted off the course of building close community ties toward creating a safe distance from the community, replacing the friendly neighbourhood beat officer, the 'guardian' with a tactically equipped 'warrior'.

George Kelling, at a recent public lecture in Brisbane (2016), explained the growth of the American police warrior culture: 'When you allow tactics drive your strategies ... you get into trouble.' Kelling has had to defend his popular 'broken windows' crime theory. Some have pointed to police acts such as the stopping of Michael Brown for jaywalking in Ferguson and confronting Eric Garner for selling loose cigarettes in New York as examples of broken windows policing misapplied (Kelling, 2015). As Kelling (2015) has stated:

The goal is to reduce the level of disorder in public spaces so that citizens feel safe, are able to use them, and businesses thrive. Arrest of an offender is supposed to be a last resort—not the first. (p.1)

Tactics employed by police on the street reinforce the perception and growth of culture. Zero tolerance tactics may reinforce an arrest first approach and may have contributed to the American warrior culture, undermining efforts to improve police legitimacy and public perceptions of police (Stoughton, 2015).

In New York, the home of zero tolerance policing, there are moves away from arrest being the preferred intervention for minor offences. The shift that took effect in March 2016 sees police being able to issue summonses for offences such as public consumption of liquor, public urination and taking up two seats on the subway, offences that were previously dealt with by arrest (Gregorian 2016). Australian police in most jurisdictions have had the discretion to issue infringements for similar offences for some time.

Police are not unique in developing a distinctive culture: workers in all occupations develop ways in which they manage certain structural strains (Van Maanen 1983). Distinctions have long been made between the 'street culture' of police on the front line and the 'management culture' that sought change, professionalisation and connection with the community (Chan 1997). Police culture resides and forms in the hands of those who do the work. Much as the discretion and freedom of action resides with the individual officer, culture grows there too. Yet in many police organisations the expectation that police will engage with the community is seen as something that other police do, not first responders.

Police culture contributing to the creation of an environment that undermines public confidence and police legitimacy is not new in Queensland (Prenzler 1997). Police culture left unacknowledged and undefined has been shown to take on a life of its own. It could be that we are now witnessing growth of a culture, driven by unrealistic perceptions of Australian policing fuelled by emotive social media and subscription to policing atmospherics from the United States that is not reflective the true culture of Australian police.

Culture that helps identify and support a police officer should not always carry with it negative connotations. The 'police family' is strongly identified as a cultural aspect of the role that can sustain and support officers, if put into the right context. Elements of the Australian TBL social media started out quite differently to the United States content. The Australian law enforcement sites at first tended to focus on supporting officers and their families, acknowledging the high suicide rate and health issues associated with the occupation. More recently, there has been a shift towards more provocative, negative content, often shared from the United States with few local examples, with more prominence given to the punisher symbology.

There is an opportunity to define the culture differently, with potential positive effects. Australians find the idea of the local police officer, the country cop, appealing and it is relevant to the discussion on defining culture for the future. The local police officer who knows everyone in town and resolves issues in ways that the community will support still exists. Country police historically have had much positive contact with the community outside the usual policing functions and have fostered relationships based on mutual respect and need (Barclay 2007).

Police in country towns would not consider themselves violent sheepdogs who work for an unseen master, but part of the community, trusted to respond to the community's needs in ways that the community supports, if not encourages. The thin blue line is at its thinnest in country divisions, yet do police there consider themselves under siege, living on the fringes of the community? I doubt they could function successfully if that was the case.

Australian police have an opportunity to define a positive police culture by looking to our own heritage and the expectations of our community. The thin blue line is not so thin if we work with our partners, which seems to happen very well in times of natural disasters. A culture that is based on social positioning that champions separation, misunderstanding and the apprehension of constant threat is unhealthy. Rather than police attaching themselves to the warrior mindset, viewing themselves as punishers and putting themselves at risk of social isolation, adopting a country police mindset, encouraged by the inclusion of front line police in high positive engagement activities, could be a better direction.

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Identifying Risky Offenders

Mark R. Kebbell, Professor of Forensic Psychology

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Imagine if police officers could predict who will commit crime. They could identify and prevent potentially dangerous individuals from escalating to extreme violence or sexual abuse. Thus, there are considerable advantages to identifying, ahead of time, who, if not stopped, will commit the most serious offences. This is the appeal of risk assessment.

A very brief history of risk assessment

People have been trying to identify high-risk offenders for a long time. In the mid-nineteenth century, Cesare Lombroso, an Italian doctor, suggested that criminals could be identified by their facial characteristics (Lombroso, 1891). The approach was called 'Physiognomy' and included risk factors such as low sloping foreheads, handle-shaped ears, hard shifty eyes, and scanty beards or baldness. Over time Physiognomy fell from favour as modern psychological research methods led to a stronger evidence base on which to make decisions. Nevertheless, early research into risk assessment showed little promise; indeed, research into psychologist's and psychiatrist's risk assessments showed they were quite poor at predicting reoffending—that is to say, they were only a little more accurate than guessing (Quinsey et al. 1998). This is, of course, embarrassing for me as a psychologist.

There are several explanations for this poor performance. The first is methodological. Risk assessments were usually only used for a minority of cases. For high risk people, those who had long criminal histories for extreme violence, risk assessment was not required because it was perfectly obvious they were of high risk. Similarly, those who had committed very little crime were not assessed for risk because they had not done enough to warrant an expensive assessment by a psychologist or psychiatrist. All that was left were the most difficult to assess people, those in the middle who could go either way—to offend or not to offend. For this reason psychologists and psychiatrists were only being judged on the most difficult cases. The second is that people were paying attention to the wrong things. Risk assessors can be biased in very many ways. Some offenders may be more likeable than others, some offences could be more vivid than others, and some offenders might be assessed for risk immediately after the assessment of heinous offenders and so look less risky in comparison. All these factors, and many more and many more besides, reduce the accuracy of risk assessment. The third reason is that the evidence base for making decisions was weak—it was not clear what information should be used to guide decision-making for risk. Data to create an evidence base for risk assessment started to improve with the greater use of computers.

More modern approaches using evidence allowed the development of actuarial approaches, where the need for personal decisions were removed entirely. Actuarial risk is usually calculated from large datasets, and analysed for factors that are related to risk. These factors are then used in a risk assessment tool where, for example, 10–20 standard items or questions are assessed for each case. An analogy of this approach is how car insurance premiums are calculated.

For car insurance, factors such as the age of the driver and their accident history are used to estimate risk, and in turn, the cost of insurance. In fact, some of the risk factors are the same—a young man, with an extensive history of alcohol abuse, is both more likely to crash a car and to commit a criminal offence!

An alternative, or supplementary, approach to the actuarial approach is the structured–professional judgement approach. With this approach, the assessor is guided as to what information to collect and assess before making his or her own decision about risk. This approach can be useful, when there is not enough evidence to create an actuarial tool. For instance, in assessing risk for terrorism against the West, the numbers of completed offences are so low that an actuarial approach is not possible and so a structured–professional judgment provides an alternative.

What does this mean for policing?

The best way to illustrate some of the uses of risk assessment in policing is to give some examples. The first example concerns assessing risk of sex offending. All Australian and New Zealand police have to maintain a register and monitor convicted sex offenders. These registers vary from jurisdiction to jurisdiction but no police service has enough resources to intensively monitor every convicted sex offender who is on a register. Hence, a way of identifying the highest risk offenders and concentrating resources on them is necessary. One way of doing this is to use a risk assessment tool such as the Risk Matrix 2000 (for full details see Thornton 2007). The Risk Matrix 2000 is an actuarial tool. The way in which risk is calculated is by using information such as an offender's age, number of sex offence convictions, number of criminal convictions, and whether the person has been in a marriage-like relationship to calculate a risk score.

The reason this works is that young people are more likely to offend than older people, people who have committed lots of sex offences are more likely to commit another sex offence than those who have committed fewer sex offences, people who have committed lots of criminal offences are more likely to commit offences in the future than those who have committed fewer offences, and people who have never been in a marriage-like relationship may have more personality and mental health problems that make them more likely offend than those who have been in marriage-like relationships. Fifty percent of people given a 'very high' risk rating reoffended after five years with another sex offence. In contrast, only 3% of people given a 'low' risk rating reoffended after five years. Although this risk assessment tool is not perfect—some low risk people offend and some very high risk people do not—it can outperform an assessor reading case files and manually assessing risk, and is also far quicker (Kebbell, Porter & Ogloff 2012). A new method, the 'SHARP' designed by Karla Lopez and Douglas Boer (personal communication) specifically for Australia appears to be even better. The usefulness of these tools is that police can focus resources where they are most needed—to prevent future sex offending.

Another example of a risk assessment tool concerns risk assessment for domestic violence. The Brief Spousal Assault Form for the Evaluation of Risk (B-SAFER) is a structured professional judgement tool used by police. This risk assessment tool has 10 items (Kropp & Hart 2004).

The items are serious physical or sexual violence against partner, serious violent threats or thoughts about violence to partner, escalation of physical or sexual violence, violations of civil or criminal court orders, negative attitudes about domestic violence, other serious criminality, intimate relationship problems, employment or financial problems, substance abuse, and mental health problems. This tool has been shown to predict reoffending reasonably accurately (Rice & Harris 2005; Storey et al. 2014). The B-SAFER appears to be better than officers' own estimates. Again, the implication of this tool is that police can focus resources where they are most needed to prevent future offending and provide an evidence base for their decisions.

A final example of a risk assessment tool that is relevant for policing is the Psychopathy Checklist-Revised (PCL-R). The checklist consists of 20 items that a trained psychologist or psychiatrist rates, to identify a psychopath. The items include pathological lying, parasitic lifestyle, lack of empathy for victims, impulsivity, and superficial charm. Offending history as a youth and in adulthood are also included. This tool has been shown to be accurate in predicting offending, including violent offending (Hare 1991). Importantly, psychopaths, identified with the PCL-R, show very little reduction of risk over time and are usually persistent offenders and commit serious offences. A good example of a dangerous psychopath is Leonard Fraser. Fraser had been convicted of multiple rapes of different women over many years and diagnosed as a psychopath. Police were aware of multiple allegations against Fraser, including his alleged rape of a cancer victim who died before the case could come to trial, multiple sexual assaults on children, and even an allegation of his having sex with a dog. Despite this, he was able to kill three women and a nine-year-old girl, Keyra Steinhardt. The implication of having a psychopath who is known to police to be actively committing offences, and inherently high-risk, is that there must be a response. Even if this only means a thorough investigation of their alleged crimes. Indeed, it is likely that even if a psychopath is suspected of a crime that cannot be proven, they have committed other offences that might be easier to prosecute if thoroughly investigated.

What does it take to make an evidence-based risk assessment tool?

Making a risk assessment tool appears easy. On the face of it, it would seem that all you need to do is gather factors associated with offenders, put them in a risk assessment tool, and 'hey presto!' you have a risk assessment tool. It is more complicated than this though—if you want it to work. There are several examples of risk assessment tools that have been used in Australia based on factors associated with offending that have simply not worked (Kebbell et al. 2012). Sometimes things that are associated with offenders do not predict future offending. For instance, most murderers have consumed tea or coffee in the 24 hours before committing a murder. However, tea or coffee consumption does not help predict murder as most people have consumed tea or coffee in the previous 24 hours. Similarly, a couple's separating increases the likelihood of a homicide. However, so many couples separate each year that separation does not predict violence on its own very well. There are also problems in using data from overseas to generate items for Australia and New Zealand. For example, the Canadian homicide rate is 70% higher than that of Australia and New Zealand (www.unodc.org), whereas the United States homicide rate is 450% higher. This means that some things that are influencing people to kill in Canada and the United States are not present to the same degree in Australia and New Zealand—in turn this will influence the accuracy of risk assessments or data from Canada or the United States.

There are many characteristics that are needed in a risk assessment tool. By far the most important is validity. That is, the tool should do what it is supposed to do. In the context of domestic violence, validity would mean predicting the frequency of future calls for service, predicting increasing violence, or predicting extreme levels of violence such as homicide. A precondition to validity is reliability. In the context of risk assessment tools, reliability has a specific definition—that a risk assessment tool is scored consistently by those undertaking the scoring. For example, if one person uses a risk assessment tool and scores someone as 'high' whilst another person scores the same person, with the same tool, and same information, as 'low' then the tool has been scored unreliably. In turn, this means the tool cannot possibly be consistently valid because it is not being consistently scored. Getting a tool to be reliable is a challenge. Often risk assessment tools have to go through several iterations before they are coded reliably.

As well as reliability and validity, it is important that the tool can be used in a practical way to discriminate between different levels of risk. If there are limited police resources, it is unhelpful to have most offenders in a 'high risk' category. For this reason, an effective risk assessment tool should be able to effectively discriminate between high (i.e., those who score high are the most likely to reoffend), medium and low risk individuals (i.e., those with a low score are least likely to reoffend).

Therefore, a final aspect for an effective risk assessment tool is to have norms. In this context norms contextualise how many people are in each category (e.g., high, medium, and low) and how likely each category is to reoffend. For example, if 20% of domestic violence offenders are high risk this means that not as many resources can be focussed on each high-risk individual than if only 5% of people are high risk. Similarly, if 80% of high risk offenders reoffend each year this means that these people might warrant more attention than if the reoffending rate is 20% for high risk offenders.

Doing all the work to make a tool reliable, valid, and providing norms is time consuming and expensive. That is why many risk assessment tools do not have an evidence base to justify their use.

What questions do police need to ask before adopting a risk assessment tool?

The fact that you are reading this article in *Police Science: The Australian and New Zealand Journal of Evidence Based Policing* means that you know that good policing is backed by evidence. When investigating a crime, you would ask, 'What is the evidence?' and you should do the same when asking what the evidence base is for a risk assessment tool. First, you should ask about reliability. Can your people code the tool reliably and how long will it take to train them to do so? A risk assessment tool might be very reliable when scored by a clinical psychologist, who has attended a two-day course on the tool. The tool might not be so reliable if coded by probationary constables, with no training in the tool, at the end of a night shift. The tool must be reliable when used in the way you intend to use it.

The next question is validity. Does the tool accurately predict risk? No risk assessment is perfect. To be useful it must improve decisions beyond those that would be made without the tool. A validated tool will have information on how accurately future offending can be predicted where you will be using it—typically this means it must be validated in the jurisdiction in which it is being used. Finally, you need to know how many people are in each category so that you can prioritise. Of course, all this information may not be available and you have to start somewhere.

Nevertheless, if someone does not have this information they should be trying to collect it and you should be aware you are using an unvalidated tool. Of course, determining validity and norms may take time. Regardless, the key point here is to ensure you know the evidence base behind a risk assessment tool.

Once high risk offenders have been identified the hard work starts. Strategies need to be put into place to reduce their risk. For some offenders this might mean thoroughly investigating any allegations that have been made against them. For others it might be referral to mental health specialists. There are plenty of options. For example, in one study we asked detectives to identify the most dangerous violent offenders in their community (Kebbell & Westera 2017). The most violent offenders were characterised by a high use of illegal drugs, impulsive behaviour and extensive offending. Detectives were able to use these risk factors to develop monitoring, intelligence and proactive ways of reducing the offenders' risk.

Conclusion

With a reliable, valid and normed risk assessment tool you will be better at predicting your most risky people. You can make those risky people less risky through your policing.

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Effective Community Policing in Queensland?

An Examination of the Police Liaison Officer Program

Kyla Watson, Scott Roetman, Anastasia Spathis, Antonia O'Flaherty and Micah David Lean

University of Queensland

Abstract

The aim of this article is to investigate the challenges faced by Police Liaison Officers (PLOs), an auxiliary body of the Queensland Police Service (QPS), in their role of cultural liaison and engagement. The research draws on perceptions of PLOs and their Officers in Charge (OICs), to analyse the extent that differing views contribute to the challenges faced by PLOs in their role.

Consequently a survey of all PLOs and OICs in Queensland in 2017 was undertaken. The final sample size was 114, comprising 75 PLOs and 39 OICs. Including a series of open- and closed-ended questions, which were compared to the frequency distributions of PLO and OIC responses and a thematic analysis of their qualitative responses was undertaken.

The research found two key challenges for PLOs: implementation and confusion regarding the PLO role. It also found that the major implementation issues that prevented the success of the PLO program stemmed from areas such as mismanagement or a lack of resources; inadequate training, advancement and input; poor coordination; and the support and value of PLOs within the QPS. Additionally, role confusion within the PLO cohort and among the OICs was a key challenge for PLOs.

This research has important implications for policing multicultural communities in Queensland and possibly have resonance for elsewhere. In particular, the findings suggest that community policing efforts can be undermined if these implementation challenges are not well addressed. Additionally, it highlights the need to implement strategies and amend the PLO program to address these issues and enhance the capacity of the QPS to effectively police multicultural communities.

Introduction

Cultural, linguistic, and social differences present challenges for government organisations when engaging with ethnically diverse communities. Police organisations are particularly prone to experiencing such difficulties (Bonner 2014; Oliveira & Murphy 2015). As a result of historical and cultural differences and experiences, Indigenous and ethnically diverse persons are less likely to feel that the police role is legitimate, or can be trusted, and are subsequently less likely to cooperate with police when necessary (Murphy & Cherney 2011; Miles-Johnson et al. 2016).

The QPS has employed PLOs since the 1990s to facilitate culturally appropriate relations between ethnic communities and the police. Formed in 1992 in response to the Royal Commission into Aboriginal Deaths in Custody, the PLO program initially focused on building trust and improving communication between the QPS and Indigenous Australians ('Community policing: Queensland's police liaison officer mode' 2014). Today, it has grown into a larger program with PLOs from a wide range of ethnic backgrounds. PLOs are employed to represent Indigenous, Polynesian, African, and Asian communities (Queensland Police Service [QPS] 2015).

Many PLOs are local residents of the areas they are based in, with previously established social networks, rapport and community respect (Appleton 2016). When this research project commenced in 2017, there were 144 PLOs stationed throughout urban and rural Queensland.

PLOs are not sworn staff and do not hold statutory authorities such as powers to detain, arrest, search or fingerprint people (QPS 2017). They are distinguished from sworn staff by a different QPS uniform which includes a PLO badge, yellow epaulettes and a hat with a yellow chequered band (QPS 2015). All PLOs undertake a two-week induction and are typically stationed in close contact with other PLOs. Part of their role is to educate culturally and linguistically diverse people in matters of the law and police. They are also responsible for educating sworn police officers about a community's customs, beliefs, requirements, and social protocols (QPS 2015). The PLO program is premised upon the idea that through education and continuous engagement with ethnically diverse communities, the QPS will be better able to serve the increasingly diverse communities across Queensland. As a result of this process of engagement, communities will develop a greater understanding of, and trust in, policing in Australia.

This research engages with the challenges that PLOs face. In particular, there is considerable confusion between PLOs and sworn staff about the function and legitimacy of the PLO position. PLOs have expressed frustration about their status in the QPS and the working relationship which exists between PLOs and sworn staff. As a result, our research investigates the implementation of the PLO program and identifies what specific obstacles PLOs have faced in performing their role of cultural engagement and liaison.

Literature review

PLOs are an initiative of the contemporary community policing paradigm. Globally, there has been a rhetorical shift from the 'professional model of policing' to 'community policing' (Cordner 2014, pp. 149–150; Weiss 2010). Evidence suggests that community policing initiatives have the potential to improve relationships between police and citizens (Brogden & Nijhar 2013; Greene 2000). Scholars also find community policing strategies are effective in increasing both citizen satisfaction and trust in the police (Gill et al. 2014). Community policing can be split into two key components: the philosophical and the strategic (Cordner 2014, pp. 154–157; Weiss 2010, pp. 35–48). Each component will be discussed in turn below.

The three philosophical tenets that underpin the central ideas and beliefs of community policing will be discussed: citizen input, broad function, and personal service (Cordner 2014, p. 154; Weiss 2010). Cordner (2014, pp. 154–157) explains these philosophical tenets in greater detail. Citizen input involves the democratisation of policing, ensuring that citizens have a say in how they are governed. Broad function is conceptualising policing as greater than law enforcement and crime fighting, further encompassing conflict resolution, victim assistance, accident prevention, problem solving, and fighting fear. Personal service requires the overcoming of detached bureaucratic

behaviour which alienates the police force from the people (Cordner 2014, pp. 154–157; Weiss 2010, pp. 34–35).

The strategic dimensions of community policing—re-oriented operations, prevention emphasis, and geographic focus—are the links that allow these ideas and beliefs to be translated into action (Cordner 2014, p. 156). As Cordner (2014) explains, re-oriented operations involve face-to-face and interactive policing practices (for example, motorised patrol and follow-up interviews). Prevention emphasis means the focus on crime prevention strategies by all officers. Geographic focus involves shifting away from understandings of police work as time and function based. Rather, policing should be based in place, with a sense of permanency to foster a relationship with the community (Cordner 2014, p. 156). Additionally, the literature emphasises the organisational structure, including management, supervision, and resources, as crucial aspects of implementation, even if they are not explicitly a part of 'community policing' tactics or strategy (Cordner 2014, p. 158; Greene 2000; Morabito 2010). Converting philosophy into organisational reform has been fraught with issues. The literature highlights this as an 'implementation gap' of community policing (Morabito 2010; Terpstra 2009).

The implementation gap refers to the inconsistent, rhetoric-driven operationalisation of community policing philosophy in policing practice across the world (Morabito 2010; Terpstra 2009). Building on this, there are two key 'gaps' in implementation: (1) the programs, strategies, and tactics employed by police organisations to follow the philosophies of community policing; and (2) the extent of organisational reform itself (Morabito 2010; Terpstra 2009; Weiss 2010, pp. 181–188). Organisational reform works within a well-recognised context of 'police culture'. Police culture is the widely-shared norms, values and attitudes created amongst police which serve to manage varying aspects of their work (Workman-Stark 2017). These elements exert considerable influence over police interactions with the public, which often has negative repercussions for citizens. Therefore, the introduction of community policing initiatives can challenge dominant policing expressions (Loftus 2010). These gaps have made community policing practices incoherent, contested, and often ineffective.

As an auxiliary body, PLOs occupy a space between the police service and the ethnic community of which they are a part. If the PLO program is supported at both the political and organisational levels then the benefits are immense (Bartkowiak-Theron 2012, p. 93). These benefits include community reassurance, enhanced intelligence gathering, and the establishment of strong relationships between agencies and communities (Bartkowiak-Theron 2012, p. 93). There are a range of implementation issues which PLOs face (Cherney & Chui 2008; Morabito 2010; Weiss 2010). Many of these tensions are a result of the design and implementation of the program, whereby there is a lack of clarity around the role of the PLO. Cherney and Chui (2010, p. 281) identify clear tensions between the 'racial and ethnic dimension of the PLO role and its coupling with community engagement and liaison.' Consequently, this has been associated with issues of performance measurement, career progression, and role ambiguity (Cherney & Chui 2010, p. 281).

This research extends analysis on the implementation gap by exploring the relationship between the QPS's implementation of the PLO program and its organisational structure. Further, this study will identify how the PLO role and identity is constructed, contested, and managed by the PLOs and their OICs. This research will contribute directly to understanding the issues facing the QPS and the PLOs. Our primary research question is: What specific challenges do PLOs face in fulfilling their role of cultural engagement and outreach? To address this question, we looked at the effects of organisational implementation and role conflict.

Method

An online survey was distributed to investigate perceptions and experiences of both PLOs and OICs. The online survey was sent to the entire population of existing PLOs ($n \approx 144$) and OICs ($n \approx 40$).

A series of closed-ended survey questions targeted various aspects of the PLO program such as understandings of the role of the PLO, training, program implementation, the working relationships between PLOs and sworn staff, the effect (if any) of differing expectations from PLOs and OICs of the PLO role, opportunities (or lack of opportunities) for career advancement and job satisfaction. These questions provided a broad understanding of how the PLO program is viewed by PLOs and OICs. To analyse the closed-ended survey questions, we began by conducting a series of descriptive analyses, exploring the frequency distribution across key survey items. Once basic descriptive analyses were conducted, hypothesis tests were performed on variables of interest to ascertain whether there were statistically significant differences between the mean PLO response and the mean OIC response to a survey question. Put simply, this analysis would allow us to establish if, and where, significant differences in opinions existed between the OICs and PLOs.

In addition, participants were offered the opportunity to further share their insights in two open-ended questions. These free text questions added additional depth and context to the analysis and supplemented the quantitative results. Qualitative data generated from the free-text survey questions were analysed thematically following Van Den Hoonaard's (2012) coding method.

The online survey was made available for two weeks in September 2017, during which 125 responses were received: 77 from PLOs and 41 from OICs. However, 11 responses were dropped from the sample due to a large number of missing responses¹. Thus, the final sample was 114 responses, comprising 75 PLOs and 39 OICs. Overall, the PLO response rate was 52% and OIC response rate was 95%.

Findings

Implementation

PLOs operate as an auxiliary body within the QPS. As a result, the QPS plays an integral role in how the PLO program is implemented. The results indicate a number of key areas that have problematised the implementation of the PLO program. In particular, our results indicate that resources, training and advancement, coordination, and the 'place' of the PLOs within the QPS are key sources of tension.

Resources

The allocation of resources to the PLO program was identified by participants as a significant issue. Figure 1 represents the frequency of responses by PLOs and OICs when asked if funding to the PLO program should be decreased or increased. Specifically, responses were gathered on a Likert scale of 1 to 5, with 1 being 'greatly decreased' and 5 being 'greatly increased'. Figure 1 shows that while both groups supported an increase in funding for the PLO program, PLOs were far more likely to support greatly increasing funding when compared to OICs.

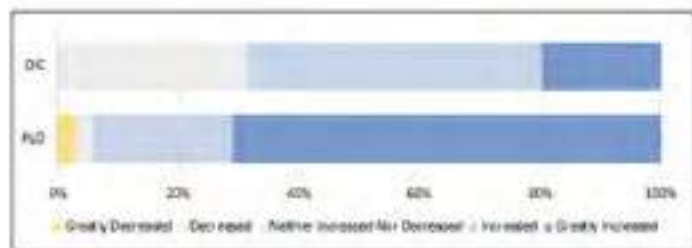
Figure 1. Funding allocation to PLO program

Figure 2 shows the frequency of responses from PLOs and OICs when asked whether an adequate number of PLOs are employed by the QPS. For this question, responses were provided on a 5-point scale, with 1 representing strongly disagree and 5 representing strongly agree. As Figure 2 demonstrates, a large proportion of PLOs strongly disagreed with this statement, indicating that they did not believe an adequate number of PLOs are employed by the QPS. In contrast, a large proportion of OICs generally agreed there were a sufficient number of PLOs.

Figure 2. Adequate number of PLOs employed by the QPS

In the next stage of the analyses, we assessed whether the differences between PLOs and OICs responses were statistically significant. Specifically, we conducted a mean difference t-test and compared the mean score for each of the scale items between the two groups (see Table 1). We found statistically significant differences for both variables. Support for increased funding was significantly higher amongst the PLO group (mean of 4.59) compared to the OIC group (mean of 3.97). This indicates that although both groups tend to agree that funding could be higher, there remains some degree of disparity between the perceptions of the PLOs and OICs. In terms of sufficient employment of PLOs by the QPS, we found OICs had a higher mean score on this item (3.05) and are therefore more likely to believe that current levels of PLO employment are sufficient compared to PLOs (2.06). The results indicate that resourcing is a source of disagreement.

Table 1. Results from t-tests comparing funding allocation and PLOs employed

	Mean (SD)		Diff	p
	PLO (n = 75)	OIC (n = 39)		
Funding allocation to PLO program	4.59 (0.81)	3.97 (0.75)	.63	**
Adequate PLOs employed by QPS	2.06 (1.28)	3.05 (0.95)	-0.99	**

* < 0.05; ** < 0.01; *** < 0.001

In the free text questions, many PLOs discussed their views on the allocation of funding and resources for the program. Examples ranged from not being provided funding to run community programs (PLO1 and PLO20) to having inadequate funding for cultural awareness training (PLO35). Resource allocation in the form of vehicles, desks and youth education was also identified as a problem related to the underfunding of the PLO program.

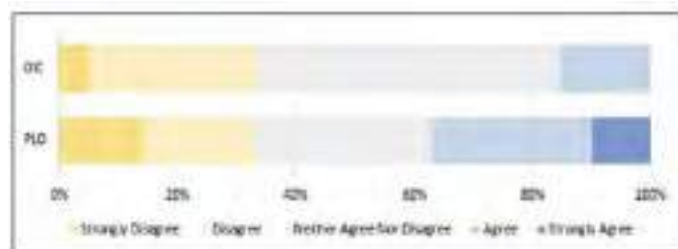
Many PLOs identified these as issues impacting the efficacy of their role of cultural engagement and liaising.

Additionally, PLOs identified work rosters as a significant area of concern. Specifically, many PLOs suggested that their hours should expand to include weekends, after business-hours, and public holidays. The following quotes demonstrate these concerns.

One PLO suggested that they 'should not only be rostered Monday-Friday as the issues still arise, actually more so late night and on weekends' (PLO30). Another identified that not working weekends was 'reducing [their] commitment in the community' (PLO10). Finally, another PLO said that not working weekends made them feel that 'hurdles and barriers' are being put up that are setting PLOs up to fail (PLO44).

Training and Advancement

Training and advancement for PLOs has been identified as a significant area of concern by PLOs and OICs. The survey targeted several areas to ascertain how both groups perceived training and advancement opportunities for PLOs. Respondents were asked a series of questions to indicate how strongly they agreed with specific statements. Responses were gathered on a Likert scale of 1 to 5, with 1 being strongly disagree and 5 being strongly agree. The first area we targeted was whether PLOs and OICs believed there is adequate pre-employment training for PLOs. Figure 3 shows that overall both PLOs and OICs tended to disagree that there is adequate pre-employment training for PLOs.

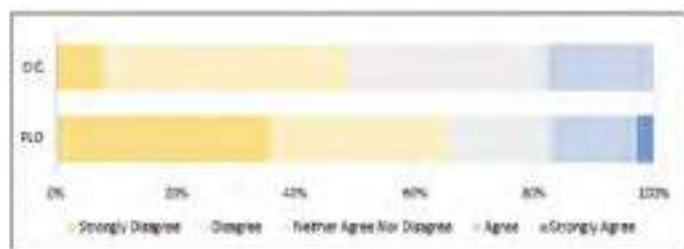
Figure 3. Adequate pre-employment training for PLOs

Additionally, PLOs and OICs were asked if there are opportunities for further training for PLOs in the QPS. Figure 4 shows the frequency of responses for both groups. While both groups tended to disagree with this statement, it is apparent that PLOs were much more likely to disagree and strongly disagree than OICs that there are adequate opportunities for further training (61% compared to 45%).

Figure 4. Further job-related training

Finally, both PLOs and OICs were asked if there are sufficient opportunities for career progression pathways for PLOs. Figure 5 demonstrates that both PLOs and OICs disagreed that there are adequate career progression pathways for PLOs, although PLOs disagreed more than OICs (66% compared to 49%).

Figure 5. Adequate career progression pathways for PLOs



Next, we conducted a series of t-tests to ascertain whether statistically significant differences existed in perceptions of training and career progression between PLOs and OICs (see Table 2). For adequate pre-employment training, we found no statistically significant difference between PLOs (3.00) and OICs (2.77). However, a statistically significant difference was found between their perceptions regarding further training available to PLOs. Specifically, PLOs (2.34) were more likely to disagree than OICs (2.74) that there is sufficient further job-related training available. Finally, there was a statistically significant difference between PLOs and OICs regarding adequate pathways for career progression. PLOs (2.19) disagreed more strongly than OICs (2.62) that there are adequate opportunities for PLOs to progress their career. Analysis of these three variables indicated that both PLOs and OICs believed training and advancement for PLOs is an issue. Additionally, this appears to be a much greater concern for PLOs than OICs.

Table 2. Results From t-tests comparing PLOs' and OICs' perceptions of training and career progression

	Mean (SD)		Diff	p
	PLO (n = 75)	OIC (n = 39)		
Adequate pre-employment training for PLOs	3.00 (1.20)	2.77 (0.78)	0.23	0.23
Further job-related training	2.34 (1.22)	2.74 (0.83)	-0.39	*
Adequate pathways for career progression	2.19 (1.16)	2.62 (0.88)	-0.43	*

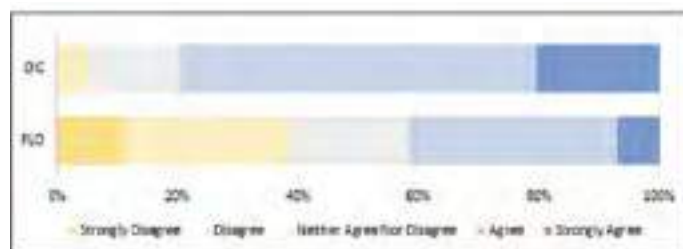
* <0.05; ** <0.01; *** <0.001

Inadequate training and progression were both themes that arose from the open-ended questions. One PLO went so far to say that 'training and personal career development for PLOs needs to be created' (PLO33), indicating, at least in their view, that no such training or development currently exists. Some linked the lack of opportunities for training and progression to a lack of funding (PLO1 and PLO20). The lack of training impacts the abilities of a PLO and can negatively affect how a PLO conducts their role and is viewed by sworn staff. As one OIC explained 'the abilities of PLOs employed by [the] QPS can vary greatly between individuals' (OIC8). One PLO suggested that they 'feel sometimes that some of our police officers think we are uneducated. Not capable of much at all' (PLO32).

Coordination

The state-wide coordination of the PLO program was another key issue. To investigate the coordination of the program, we asked PLOs and OICs to indicate how strongly they felt that communication from the QPS was clear. Responses were taken on a Likert scale of 1 to 5, with 1 being strongly disagree and 5 being strongly agree. Figure 6 shows a great difference between OIC and PLO responses, with OICs more likely to agree that communication from the QPS is clear (79%), whereas only 41% of PLOs agreed.

Figure 6. Communication from the QPS



To further investigate these findings, we conducted a t-test to determine if there was a statistically significant difference between PLOs' and OICs' perceptions (see Table 3). The t-test showed a statistically significant difference between PLOs (2.99) and OICs (3.95), indicating that OICs are more likely to perceive communication as clear. This represents a clear disjuncture between PLO and OIC perceptions.

Table 3: Results From t-tests comparing PLOs and OIC's perceptions of communication from the QPS

	Mean (SD)		Diff	p
	PLO (n = 75)	OIC (n = 39)		
Communication from the QPS is clear	2.99 (1.17)	3.95 (0.76)	-0.96	**

* < 0.05; ** < 0.01; *** < 0.001

The open-ended questions further problematised the state-wide implementation of the PLO program. Numerous PLOs and OICs responded that there is no uniformity across the state: 'The work the PLOs do varies greatly between stations' (OIC15); 'there is no uniform treatment of PLOs across the state' (PLO10).

An OIC explained that when working in an urban Brisbane location: 'PLOs are out on the street with sworn officers every day interacting with the community, providing support and closing the divide between police and indigenous persons' (OIC15). Whereas in the suburbs it was perceived that 'PLO interactions appear to be more limited to when they attend jobs or community meetings/events' (OIC15).

The lack of coordination across Queensland was perceived as stemming from, amongst other things, sworn staff entering supervisory positions with 'a lack of knowledge ... as to what the PLOs duties are' (PLO44). One PLO expressed their personal experience with this: 'Several changes in CCLOs [Cross Cultural Liaison Officer] over the years has resulted in different interpretations of what our role entails' (PLO44).

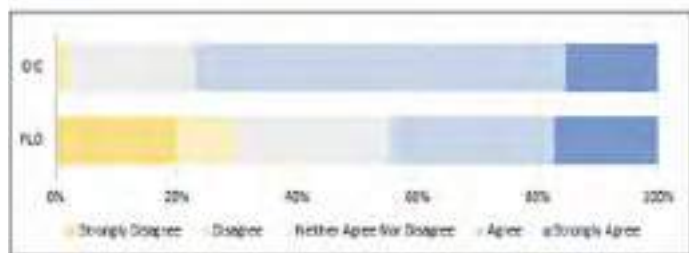
The constant change of supervisors results in PLOs having to explain their role to the 'acting or new person as they come into the position not fully understanding the PLO role' (PLO16). An additional theme that came up in the data was that some PLOs felt the coordination of the PLO program should be more autonomous to QPS staff. Examples of PLO comments are: 'more networking by state coordinators with each other and the PLOs under their region' (PLO12); 'QPS does not include or consult with the PLOs enough' (PLO18); and 'PLOs will not speak up for themselves due to repercussions' (PLO19).

PLOs' 'place' in the QPS

The data indicated that the working relationship between PLOs and sworn staff was an issue for PLOs. The survey included a series of questions that targeted perceptions of the PLOs 'place' in the QPS. Respondents were provided with a series of statements and asked to respond following a scale of 1 to 5, with 1 being strongly disagree and 5 being strongly agree. First, both PLOs and OICs were asked if PLOs are valued members of the QPS (see Figure 7).

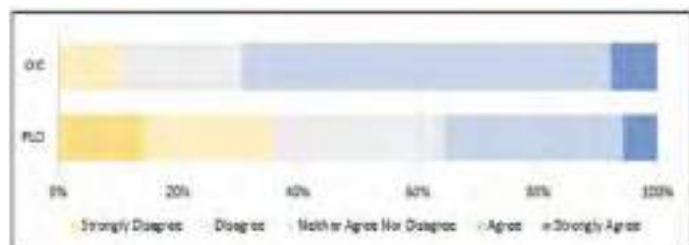
Figure 7 shows that OICs overwhelmingly agree that PLOs are valued members of the QPS. While PLOs generally agreed, more PLOs strongly disagreed and disagreed than OICs.

Figure 7. PLOs as valued members of the QPS



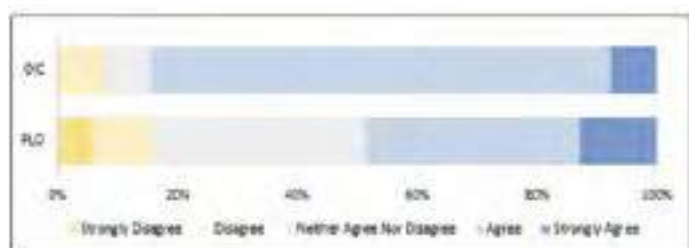
Second, PLOs and OICs were asked if PLOs received adequate support from the QPS when issues arise. Figure 8 shows that OICs were more likely to either agree or strongly agree (69%) that there is sufficient support for PLOs, whereas PLOs tended to disagree or strongly disagree (36%).

Figure 8. Support for PLOs from the QPS when issues arise



Finally, both groups were asked if PLOs and sworn staff work well together (Figure 9). Both PLOs and OICs tended to agree that PLOs and sworn staff have a good working relationship. However, OICs agreed more strongly than PLOs (85% compared to 49%).

Figure 9. PLO and sworn staff working well together



We then evaluated whether statistically significant relationships existed in each of these areas (see Table 4). The mean responses for PLOs as valued members of the QPS for PLOs was 3.11 and for OICs 3.90. We found a statistically significant difference between PLOs and OICs. This suggests that there is a discrepancy between the two groups, with OICs agreeing more on average that PLOs are valued members of the QPS. Additionally, we found a statistically significant difference between the PLOs (2.91) and OICs (3.67) regarding QPS support for PLOs. While OICs believed PLOs are adequately supported, their perceptions do not align with PLO views.

Finally, we found a statistically significant difference between PLO and OIC perceptions when it comes to how well PLO and sworn staff work well together (3.40 and 3.85, respectively). Both PLOs and OICs generally agreed that these groups work well together. However, these findings suggest there is a disjuncture between OIC and PLO perceptions regarding PLO working relationships with sworn staff.

This suggests that some tension between working relationships may exist and are either unidentified or unacknowledged by OICs. These discrepancies between PLO and OIC views highlights a significant disconnect between PLO and OIC perceptions on the place of PLOs within the QPS.

Table 4: Results From t-tests comparing PLOs' and OICs' perceptions of value, support, and working relationships

	Mean (SD)		Diff	p
	PLO (n = 75)	OIC (n = 39)		
PLOs as valued members of the QPS	3.11 (1.37)	3.90 (0.68)	0.78	**
Adequate support from the QPS for PLOs	2.91 (1.15)	3.67 (0.77)	-0.75	**
PLOs and sworn staff working well together	3.40 (1.03)	3.85 (0.67)	-0.45	**

* < 0.05; ** < 0.01; *** < 0.001

The free-text responses provide even greater insight into the PLOs' place within the QPS. A key theme that emerged was that some PLOs have felt a 'lack of appreciation and respect' (PLO18). Some PLOs identified that 'sworn officers [must] understand that PLOs work "with" [them] not for them' (PLO33). Indeed, many PLOs identified that sworn staff have posed issues for them by 'declin[ing] to give information to the PLOs' (PLO31) and misconstruing what the role of the PLO is. A prime example of sworn staff behaving this way is described as follows: 'The police were looking for a stolen car and when PLOs asked for the rego, an officer replied with "we got this, you're not needed"'. Those moments are few but make us feel not part of the QPS' (PLO31).

This demonstrates an organisational disconnect regarding the PLOs' place within the QPS. This ties in with what many PLOs identified as a lack of 'cultural understanding and knowledge' (PLO24) in the QPS. PLOs suggested that 'police officers do not understand cultural issues as they are not given cultural training and emphasis of its importance' (PLO7) and identified that familiarisation of 'cultural protocols and cultural specifics' (PLO35) and 'cultural engagement... for building and maintaining positive relationships with the community' (PLO35) needs to be understood by supervisors and sworn staff.

PLO Role Confusion

Survey data revealed discrepancies in the way in which the role and duties of a PLO are understood by PLOs themselves and their OICs. Despite a large majority of both OICs (74%) and PLOs (86%) agreeing that they had a clear understanding of the role of a PLO, further analysis revealed that PLOs and OICs understood the role differently and placed importance on different duties. Additionally, 45% of PLOs indicated that there are discrepancies between how they perform their role and what their OIC expects of them.

Primary Purpose of PLO Role: Engagement or Enforcement

One area in which OIC and PLO opinions differed considerably was the extent to which the PLO role is one of engagement and community liaison or one of enforcement (an extension of the work of sworn staff). This was highlighted when respondents were asked to identify the five most important duties of a PLO, drawing from analysis of the PLO job description (QPS 2017) (see Figure 10).

'Assisting sworn staff with police duties' was chosen by 85% of OICs as one of the five primary duties of a PLO. Comparatively, this was selected by 59% of PLOs as one of the five most important duties. These percentages demonstrate a clear disjuncture between OIC and PLO perceptions on the importance of assisting QPS staff with police duties within the PLO role.

Conversely, 85% of PLOs and 100% of OICs selected 'networking and engaging with community leaders' as one of the five main duties of a PLO. Despite the consensus on this aspect of the role, qualitative data elicited from the survey found that this consensus is not always reflected in the way in which PLOs are deployed and used across Queensland. There was a recurring theme of a marked disconnect between engagement and enforcement objectives of the role between PLOs and OICs in the qualitative data. While some PLOs identified their role as semi-operational, some did not view their role as operational at all. Specifically, a range of PLOs expressed confusion as to why they were asked to perform enforcement style duties. One PLO stated that

My supervisor constantly related my role to that of a police officer and does not understand building a relationship with my community is a 24/7 job. I feel that the QPS and my supervisor only place value on reportable programming and outcomes and very little on PLOs having engagement in community and talking to and building relationships. (PLO18)

Similarly, another PLO said 'we are seen as more of a police presence than engaging with members of the community. We need to be encouraged to start initiatives to help curtail crime or be seen as an answer to helping the community' (PLO4).

OICs also spoke of the fundamental confusion about the roles of a PLO, stating, 'tasking can often border on operational rather than engagement. And this is my main point; are PLOs to engage with their communities or provide operational assistance to a division' (OIC11). The lack of clarity in the role specification between an operational/enforcement focus and an engagement focus should not be understated as they entail different objectives and expectations. A significant range of the challenges which PLOs have faced in performing their role may stem from this engagement versus enforcement disparity.

Education Role of PLOs

The educational aspects of the role of a PLO are formalised on the QPS website. It states that PLOs have a duty to 'advise and educate police officers on culture and cultural issues' and 'improve community

knowledge of law and order issues and policing services' (QPS 2017). The analysis of quantitative survey data suggested PLOs and OICs held differing opinions about the importance of the various educational aspects of the PLO role. It was found that 'educating sworn officers about cultural customs and differences' was considered one of the top five duties by both PLOs (84%) and OICs (87%). Despite the apparent agreement on the importance of this aspect of the PLO role, analysis of free-text survey responses revealed that this does not consistently translate into practice. One PLO stated that the role of a PLO is to 'educate all police on cultural and community protocols and the QPS and supervisors do not allow PLOs to do this, as the focus is always on community related issues' (PLO18). Another suggested that the organisational culture of the QPS devalued the contribution of PLOs and that sworn staff were unable to be educated because they did not want to be educated (PLO21).

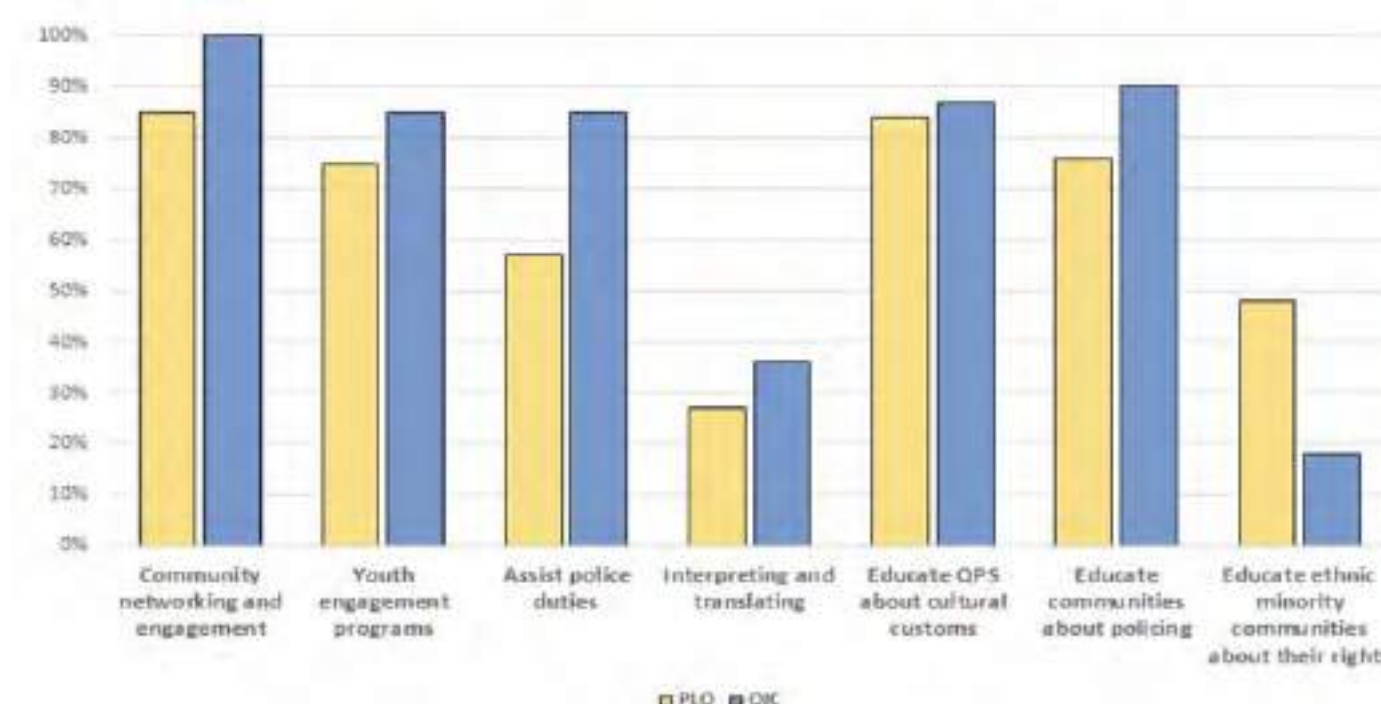
Additionally, there was agreement amongst OICs and PLOs regarding the duty of PLOs to 'educate communities and community leaders about policing in Australia.' Our results showed that 76% of PLOs and 90% of OICs agreed that this was one of the top five duties of a PLO. However, PLOs and OICs held differing views about whether educating ethnic minorities about their rights was an important aspect of the PLO role. Approximately 48% of PLOs agreed that this was one of the five key duties of a PLO, compared to just 18% of OICs.

Discussion

Multiculturalism has created challenges for policing around the world. Specifically, culturally diverse populations may have varied understandings of the police role. Police legitimacy and trust in police may be diminished when individuals have experienced police violence or police corruption in a home country. As a response to the challenges of policing culturally diverse communities, the QPS have implemented the PLO program.

While OICs as well as PLOs spoke of the immense importance of the role, there appears to be a range of challenges that diminish the effectiveness of the program. The research findings can be categorised into the following two sub-themes: implementation issues and role confusion issues.

Figure 10. Percentage of PLOs and OICs that selected each duty as one of the most important PLO duties



With respect to implementation issues, the major areas of concern were the management and organisational components of the PLO program. PLOs and OICs both identified a lack of resources, a lack of training and career advancement opportunities, poor coordination and a general questioning of PLOs' place in the QPS as barriers to fulfilling the PLO role. This is as an example of the 'implementation gap' that exists in community policing. This research has highlighted that the QPS PLO Program has faced similar issues to community policing initiatives around the world, specifically those relating to transforming rhetoric into practice. Police culture that emphasises law enforcement, disjuncture between police and citizens, and othering of citizens has underpinned some of the challenges faced by PLOs. Although modern community policing rhetoric challenges these elements of police culture, our research demonstrates that there is significant emphasis on enforcement-style activities. PLOs seek to engage with citizens or communities and thus do not follow an enforcement-style role. Arguably, the emphasis of enforcement has fostered an environment where the community engagement and liaison work of PLOs is underappreciated.

We also found confusion around the PLO role existed within the QPS. Most PLOs and OICs identified disconnect between what OICs expect of PLOs and the way in which PLOs carry out the role. As highlighted by the relevant literature (Cherney & Chui 2008, 2010), PLOs struggle to balance the expectations of the community and the QPS organisation. Both relationships are crucial, yet PLOs find that balancing the competing expectations is not straightforward. Additionally, the research found miscommunication and misunderstanding about the primary activities and the core purpose of the PLOs. Many PLOs reported a focus on enforcement-style duties at the expense of community engagement and connection. This is reflected in the disjuncture between PLOs and OICs regarding the educational aspect of the PLO role. Due to habit, doubts regarding community policing validity, or disagreement with its philosophical underpinnings, police culture resists changing behaviour (Cordner 2014). Devaluation of the education role of PLOs represents the enforcement emphasis of the QPS and the use of PLOs in a way that minimises their ability to challenge dominant police cultures.

Conclusion

As an auxiliary body of the QPS, PLOs face a range of issues in performing their role of cultural engagement and liaison with ethnic minority communities. Through analysis of survey data, which included a series of closed- and open-ended questions, this study has found two key themes that challenge the efficacy of the PLO program: implementation and confusion regarding the PLO role. We found major issues preventing the success of the PLO program stemmed from implementation areas such as mismanagement or lack of resources; training, advancement and input; coordination; and PLOs' place in the QPS. Additionally, we found role confusion within the PLO cohort and among the OICs was a key challenge for PLOs. As 48% of PLOs did not respond to the survey, it must be noted that there is potential that PLOs who were less content with the program may have been more willing to participate, thereby skewing the results. This research offers an interesting insight into the PLO program in Queensland; however, it cannot be generalised to other states where PLO programs (and the communities they serve) differ. The research contributes to the growing body of literature on community policing in Australia, and PLOs more specifically.

This research can enhance QPS' understanding of policing ethnic communities and, consequently, integrate diversity and intercultural trust and communication within the police and wider institutions. Data drawn from PLOs and OICs provides evidence that there are key discrepancies in the implementation and role of PLOs. This has important implications for the QPS in improving policing within multicultural communities.

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End Notes

1. These respondents answered less than 2 questions and were therefore excluded from the sample

Disclaimer

The opinions expressed in this publication are those of the authors. They do not purport to reflect the opinions or views of the Queensland Police Service. Any errors of omission or commission are the responsibility of the author/s. The research was conducted as part of an undergraduate assignment. Therefore, the intended aims and objectives of the research was limited and the methods were restricted to a small sample size and a single methodology. The results of the present research should therefore be interpreted with caution. It is recommended a more comprehensive review of PLOs be undertaken.



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Seven Deadly Sins: The Role of Academic Culture in Killing Potential Police-Academic Partnerships

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The past decade or so has witnessed a remarkable growth in policing research, and with that growth, the methodological, practical and other research-related matters researchers grapple with have increased exponentially. One research project alone can create a network of enduring collaborative relationships between police agencies and researchers. It can also engender suspicion, resistance, failed projects and an unwillingness to invest in other similar partnerships.

Not surprisingly, then, much ink has been spilt in the pursuit of addressing the question of how best to improve the state of researcher-practitioner partnerships. Most notably, relations between the two groups have been characterised as a 'dialogue of the deaf' (Bradley & Nixon 2009), a conceptual device that implies a level of parity in terms of both the causes and the consequences of failures within the relationship.

We would suggest, however, that there has not always been an equality of treatment when it comes to how academic researchers have characterised problems in developing police-researcher relationships. Certainly, at any academic policing conference or workshop, one will hear about the closed police station door and the role of police culture in keeping that door firmly shut. This emphasis on police culture as a primary inhibitor of, or constraint upon, academic research is reinforced through various scholarly works that focus almost exclusively on police culture, while ignoring the role that academic culture can also play in shaping what is, after all, a relationship (Goode & Lumsden 2016; Greene 2016).

When discussions do arise about the ways in which academics 'get it wrong' in trying to build relationships with practitioners (Canter 2004, p. 112), as they do, mistakes and problems have been variously attributed to knowledge differences (Canter 2004); different reward systems, time scales and/or expectations (Fleming 2010; Rojek et al. 2015); distrust based on the work of critical colleagues (Engel & Whalen 2010); and, less frequently, individual and/or interpersonal factors (Rojek et al. 2015), among others. Less frequently, if at all, does anyone reflect at one deeper level on the possibility that academic culture—that is, the patterned ways in which the institutional environments

within academe shape ideology, behaviour, policy and practice—might itself create or exacerbate some of the problems that plague the development of partnerships with police practitioners (see Buerger 2010; Fleming 2012; Manning 2005, for notable exceptions).

Within this paper, we draw on our combined experiences of conducting policing research, as well as on our work in creating and fostering police-researcher partnerships to examine six areas of strain and potential for improvement. These experiences—and our respective vantage points—have allowed us to develop some insights over time into some of the common mistakes made by some academic researchers. Underlying these mistakes are beliefs and related behaviours that we trace back to aspects of academic culture(s). What we argue is that while some of these beliefs and behaviours are well-suited for the purposes of the academy, they do not serve researchers well within the policing world. In an admittedly semi-facetious way, we have termed these 'six deadly sins.' While we do not see them as 'sins' per se, we do see them, in the policing context, as issues that can, as we document throughout, easily scupper budding relations between researchers and police.

1. Lecturing instead of listening

Much of academe is built around the transmission of knowledge in oral and written forms. In either case, this transmission usually takes place in the form of a monologue (the lecture), in which the learned individual offers an exposition on the topic of choice. Freire (1996, p. 72) refers to this type of learning as 'banking'. Lectures occur in the class room, at conferences, at job 'talks', in workshops and so on and so on. With this approach, instructors bestow knowledge upon the students, or 'deposit' it, and the student passively receives information.

This method maintains an uneven balance structure. The instructor preserves their superiority by maintaining their role as the knowledge-holder, which in turn promotes the student role as knowledge-seeker. Although banking is a traditional approach in academia, police enter a classroom or into

a relationship with an academic with a vast amount of street experience that should be respected. Freire argues that the learning environment should be one of equals, where both instructor and student knowledge is valued. Both the academic and the practitioner bring knowledge, life experience, and talent to the relationship to create an environment where 'both are simultaneously teachers and students' (Freire, 1996 p.82). The exchange of knowledge, rather than the depositing of knowledge, leads to transformation of both the academic and the practitioner's understanding.

Having attended many meetings at which both police and academic researchers are present, both of us have observed an academic tendency to lecture more than to listen, depositing rather than stimulating interest (see also Innes & Everett 2008). Lecturing in these settings occurs when academics dominate a discussion, fail to ask anything but non-rhetorical questions and continue to speak even when the audience has stopped listening. An example of this activity, witnessed by one of the authors, occurred when she organised a two-hour meeting between police and researchers to discuss developing new research based on police ideas. The academic portion of the 'introductions'—your name and what you do—took almost an hour and a half to complete. By the time the meeting was finally opened up to the police and their interests, the practitioners had become quiet and were no longer interested in participating.

2. Challenging ideas without thinking through interpersonal dynamics

In the sciences, it is generally accepted that ideas are subject to challenge and that debate should be both open and vigorous. This process, we believe, helps us to refine, accept or discard both old ideas and new innovations. Thus, it is not unusual to see academics squaring off¹ in lecture rooms and conference halls, tenaciously challenging each other's ideas with little to no regard for interpersonal dynamics. In such settings, 'ideas' or 'ideology' are paramount and 'feelings', whether hurt or not, are generally irrelevant².

The practice of challenging colleagues in front of an audience is, if not wholly, then certainly largely, unique to academe. One of the authors previously worked in the private sector, where such exchanges could easily earn one a negative performance review on the grounds that she wasn't being a 'team player'. Being a team member usually implies that one has some regard for another's feelings and/or respect for their status and therefore doesn't publicly criticise or, worse yet, demolish their work. Police culture often views questioning someone in public as undermining credibility, or, if the questioner is of a lower rank, insubordinate. While attending a course on evidence-based policing a professor was lecturing on a hot spot randomised controlled trial. One of the students in the course, a pracademic—practitioner/academic—asked questions about the study, how the officers were tracked, what instructions officers were given, how the analysis was performed, etc. After the class the practitioners expressed their disbelief asking 'Why so mean? Is that something you academics do?' Even when it was explained that the intention was not to make the professor uncomfortable, but to clarify understanding, the practitioners still viewed the exchange as 'rough' and they were glad they were 'not in the professor's shoes.'

3. Specialist language

Academics are trained to use specialist language. The use of this specialist language can sometimes render what is said meaningless to a lay audience and even, in some instances, incomprehensible to academics in other disciplinary fields (Castronova 2013). Within academic literature, the employment of specialist terminology has been treated as both a technical skill (Street 1997), as well as a form of cultural capital 'with the potential to exclude those who do not have the cultural knowledge or capital to understand the wider rules and conventions around academic language' (McKay & Devlin 2014, p. 952). Our concern is with the latter use, wherein academics use terminology and phrasing that may help them to elevate their status as experts, but risk alienating police audiences (see also Kennedy 2015).

The dense and often unhelpful use of academic jargon is a not an infrequent complaint of police practitioners, and it is a complaint with some merit. We have sat in on presentations among mixed audiences, scrambling to understand not only specialist terminology but also complex graphs for which we had little initial training. We have

also sat in on meetings where academics attempt to explain an idea or research practice to potential police partners, and, despite admonitions to use plain language, lapse into specialist speak. Often academics seem unaware that not everyone is familiar with even basic research concepts such as 'big N' and 'small n.' Although these terms may sound less threatening than, say, 'multivariate regression' or 'discursive formation', they are sufficient for a senior officer untutored in these concepts to lean over, as happened to one of the authors, and confess she finds academics 'intimidating.' People who make others uncomfortable—whether intentionally or otherwise—are not typically those sought for active partnerships.

4. Plain language as 'dumbing down'

As Engel and Whalen (2010, p. 108) have similarly noted, a 'lingering' problem 'in the police-academic dialogue is the tone of the message and choice of language. Often academics use language that implies intellectual superiority.' This message of intellectual superiority is perhaps no more predominate than in the culturally embedded view of plain speaking (ie. non-jargon-laden language) as 'dumbing down.' As with the use of specialist language, this is a tactic that reaffirms expertise, but at the cost of alienating potential partners, particularly, when, as we have observed, you intimate or outright tell your audience you are dumbing down for their comprehension.

This deliberate oversimplification cements the banking pedagogy 'the teacher chooses the program content, and the students (who were not consulted) adapt to it' which encourages passive learning rather than active engagement (Freire, 1996, p. 73). Dumbing down is not the same as purging specialist speak. Dumbing down a lecture assumes the audience cannot comprehend the content. Eradicating specialist speak assumes an audience is not privy to the cultural connotations of the speaker. The speaker has to find balance—that is, create an environment of shared knowledge, wherein the speaker speaks in the language of the listener.

Although it might be hard to credit, we have observed firsthand academics delivering the 'I'm dumbing it down' message. The most recent example occurred in a meeting during which a senior scholar, with little previous experience communicating outside of select circles, told a police audience at a potential partnership meeting that he recognised they were not academics and would therefore be

'lowering the level of his content' (translation: dumbing it down).

5. Police solely as 'subjects' or 'data sources'

One of us once sat in a meeting during which an experienced postdoctoral fellow, but novice policing researcher, asked about gaining access for his research project, a move that would require police services to hand over confidential intelligence data to someone they neither knew nor trusted. What made the situation even more awkward was that the fellow had been advised beforehand that such trust had to be earned over a period of time and that he would do better by focusing on getting to know the police, meeting participants and hearing what research issues were of importance to them. He did neither. Instead he saw them solely as data sources and was openly intent on seeking access to their data on a project that was of zero interest to the police present and would have exposed them to some potential risk. He then subsequently requested that the meeting organiser provide him contact information for all the attendees, so he could 'follow up.' When it was pointed out to his supervisor that his behaviour threatened to undermine the point of the exercise—building a meaningful partnership with the police to develop new projects—all communication stopped.

The experience of observing researchers treating police solely as research 'subjects' and/or as 'data sources' is hardly unique to us. Previous scholars have similarly noted a tendency by some researchers to see police only as means to serve their research ends, a tendency manifest in an lack of interest in taking the time to build enduring trust relations, or in considering how to develop research of benefit to practitioners (Fleming 2010). Although we might attribute such views and behaviour solely to personal factors, academic culture clearly plays a role here. The reality is that much of academic research is oriented towards turning 'people into abstractions ("subjects") whose individual traits are further abstracted into "variables"' (Buerger 2010, p. 136). When one works in an environment in which aspects of social life are turned into real or virtual laboratory spaces, and individuals and institutions into abstractions, it can be difficult to then move into real spaces in which both individuals and institutions have equally legitimate, independent needs and wants to be serviced through a partnership.

6. Critical of others but not typically self-reflexive

Some scholars have suggested that the reason why academics frequently find it difficult to get in the door at many police services is because practitioners are wary of the critical bent found within various social science disciplines and fear their deepest secrets will be exposed in critiques embedded in academic journal articles, or, worse yet, in the daily news (Bradley & Nixon 2009; Rojek et al. 2015). Experience has taught us that this academic belief is not untrue, and that such concerns on the part of police are not unfounded. While there are significant variations in terms of what constitutes 'critical' approach within any study, it is the case that social scientists and other researchers are, by training, supposed to be critical in the sense that they bring a critical gaze to the identification, treatment and evaluation of both applied issues and larger social problems.

Put more directly, social scientists are trained to look for and to identify problems and their causes. This is very much an external gaze. Beyond looking at issues of researcher bias, or encouraging reflexivity in certain forms of qualitative work, researchers are seldom taught to be reflexive (Fleming 2012), and/or to cast that critical gaze upon ourselves, even when failure strikes. We seldom think that perhaps the reason why a potential venture failed is due to personality issues, or our interpersonal skills—that is, how we speak, how we present ourselves (Cockbain 2016; Rojek et al. 2015).

One of us attempted to assist a service by putting them into contact with a highly experienced researcher in a field in which they needed some advice. After an initial meeting, the police practitioners were reluctant to pursue any further communication with this person and were vague in their reasoning. The researcher was of the view the police officers did not understand or appreciate the value of her work. It was subsequently discovered the issue was interpersonal: the practitioners simply did not feel they would be able to work well with this individual.

7. Picking sides

Policing research is not immune from a standard problem within academia: squabbling over whose 'way [insert here: methods, research topics, ideology, theoretical perspective, school and so forth] is the true way.' This type of jousting—whether it be for status, market share and/or 'converts to the cause'—is hardly new

to anyone who has spent time within the halls of academe, where such battles can be the stuff of legend. However, thanks to the advent of social media, what is new is the increasingly public nature of such disputes. Today, not only do other academics get to be unwitting spectators, but so too do police services. And, increasingly, attempts are made at drawing both sets of spectators into what is otherwise—at least for the spectators—a largely irrelevant set of disputes over academic points of interest (but not all that interesting to anyone else, who just want to 'get on with it').

The reason why academic disputes in policing research are so dangerous is not because of their 'viciousness' over 'small stakes', as the usual phrase about academic politics goes, but because they threaten to undermine the credibility of most/all policing researchers. It's a bit like the current politics over global warming: if there's no consensus as to a core scientific message, then it becomes easy for not only junk science to proliferate in public and policy circles, as has been the case with global warming, but, in relation to policing, for agencies who might otherwise be receptive to scientific inquiry to dismiss all research as simply end products of contested knowledge claims among squabbling factions. If there is no appearance of consensus as to 'what works', and only fighting over what are really minor points of difference or, in some instances, overblown claims, then who or what is worth paying attention to? Not only is the business of academics airing their dirty laundry, and recruiting police allies to their respective causes, all a bit unseemly, but such activities lead some officers to confuse minor and important differences³ because of the sheer volume of academic chatter. This recently happened when a police Inspector dismissively mischaracterised legitimate critiques raised by one academic of another's misguided plan—a plan that was essentially a waste of policing resources—as 'academics squabbling.'

Moving forward

If you talk to a man in a language he understands, that goes to his head, if you talk to him in his language, it goes to his heart ~ Nelson Mandela

In this final section, we want to offer some thoughts on how researchers can avoid some of these 'six deadly sins'. These suggestions are not intended as definitive solutions to any or all of the problems identified. However, we do believe they offer a starting point for researchers thinking

about how best to generate productive and mutually beneficial research collaborations with police and other public agencies.

Developing relationships

The focus of academic-police relationships should be on just that—the relationship. In all relationships, people have expectations, wants and needs. When these aspects of a relationship are not met, trust breaks down. Without trust, cooperation diminishes (Tyler 2006). Relationships are based entirely on trust and trust emerges through rapport and empathy. People develop rapport with each other through verbal and non-verbal gestures that convey a positive and productive effect (Bernieri & Gillis 2001). Empathy, however, requires deep listening to make a person feel understood beyond their words (Goleman 2006).

Rapport and empathy need to be sustained throughout the relationship for either person to share information that is sensitive or meaningful (Walsh & Bull 2012). This may require academics to hold off on seeking data or advancing other self-interests until a relationship based on trust has been established. This might require the academic performing pro bono work for the organisation as a gesture of goodwill, or working on a piece of analysis for an agency that is useful for them, but might not lead to a publication.

We cannot emphasise enough the importance of listening to the development of fruitful relationships. Listening requires the suspending of assumptions about the nature of the problem, understanding not the surface meaning of the words spoken but the underlying values and beliefs of the message, and subjugating your own wants and needs for the benefit of the practitioner. We understand this is contrary to both academic and police cultures; however, it will likely be more beneficial to the development of a productive relationship if academics listen first. For example, rather than proposing a project or idea, a researcher might ask practitioners what problems they need solved in their organisation. There will be a time for academics to explain, educate, and cajole the practitioner once a trusting relationship has developed.

Creating an environment of shared learning

Learning is a shared experience. Knowledge emerges through interaction with the world and each other (Freire 1996). Although the culture of academe is to teach by lecture, we caution academics against lecturing to practitioners.

Lecturing has one of the lowest impacts on knowledge retention, skill attainment, and application/problem solving (Seashore-Lewis 1996). Further, lecturing implies a position of superiority, the expression of which can be fatal to the development of co-equal relations. If academics engage in listening and work at building rapport and trust, then the exchange of knowledge between professions and professionals can become a shared experience.

This process will be greatly aided by researcher avoidance of specialist language, and acknowledgement that one is not dumbing down for his or her audience, but rather removing barriers to true engagement. We would also add that issues associated with professional language barriers can be reduced when knowledge is generated between two professions as opposed to bequeathing it to one another. This mode of knowledge transmission requires the academic to view street experience as a legitimate knowledge base and part of the research model.

Incorporating experience as part of the research model

Police experience should not be discounted. Most police managers have 20 or so years of experience with applying laws, dealing with people, and managing a police organisation. They intimately understand the problems facing their community and department. Thus, their experience should be incorporated into the research model.

When trying to understand a problem, academics need to understand how the department views and addresses that problem. Without including practitioner experience, the research design could be flawed from the start. As an example, the Development Bank of Latin America funded a large-scale hot spot study in Venezuela that failed due to police organisations 'not being willing to implement the intervention' (Ortega, D., personal communication, November 30, 2016). Active police involvement in the creation of a project can inform researchers as to what an organisation is capable of accomplishing, as well as what kinds of data they collect and/or are comfortable releasing.

Demonstrating the benefits of good research

Demonstrating the organisational benefits of quality research can overcome police practitioners' uneasiness with new or challenging ideas. Many projects, programs, or activities become beloved by police

services when leaders are able to point to research showing these programs are efficient and effective in addressing very real social and community problems. Further, given that most programs or interventions in policing are extremely costly, a rigorous evaluation can demonstrate ways in which significant savings can be generated.

Relationships turn into reputation

Once a researcher establishes their credibility with an agency, the relationship turns into a reputation. An overarching question for all policing researchers should be, 'What is my reputation?' Is one known for being demanding, difficult and arrogant, or collaborative, helpful, and thoughtful?

These are elements of a police academic's reputation that are as important to the success and longevity of one's policing research career as publications, citations and grant funding.

Police services are not only the gatekeepers of the criminal justice system, they are also the gatekeepers for researcher access. Without their cooperation, one has no data to analyze. The police culture tends to accept the wisdom and experience of other services; thus, if one agency assigns you credibility, others will follow. This is how a reputation gets established.

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End Notes

1. Usually 'squaring off' only in metaphorical terms, although at a recent major academic conference a police officer colleague advised he had broken up what looked like a potential fist fight between two researchers.
2. Which is probably the real source of much of the animus that can occur among academics.
3. As we are both qualitative and quantitative researchers, respectively, we are more than happy to debate who is, or is not, allowed under the umbrella of Evidence Based Policing.

Young Officers Drive Faster, but Older Officers Crash Less: Results of a Police Pursuit Driving Course

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Abstract

Police officers are often required to drive at high speeds. These high speed events have led to fatalities. The aim of this research was to investigate whether officers were more likely to be involved in a motor vehicle accident when driving at high speeds, and whether age or experience contributed to an increased risk of accident. Retrospective data for 43 incumbent police officers, stratified into two different age groups (20–39 and 40–59 years), were analysed following completion of a driving program practical test completed as fast as possible with as minimal marker cone disruptions as possible. The 20–39 year group completed the test significantly faster, but with more violations, than the 40–59 year group. Younger officers may have a lower hazard perception, a tendency to fixate on fewer or on more stationary objects, a lowered perception of risk, and an over-estimation of driving abilities.

Keywords: vehicle pursuit, safety, road, accident, law enforcement

Introduction

As part of their normal duties, police officers are often required to respond to time critical incidents. These incidents may necessitate officers proceeding to a designated venue as fast as possible, and as such, drive under high speeds (Decker et al. 2016). Alternatively, officers may also become involved in a vehicular pursuit of an offender, which likewise may involve travelling at high speeds (Hess et al. 2013). There are several important issues that must be considered in the event that a police officer is required to drive at high speed.

High speed driving, or 'driving under lights', is an acknowledged police stressor (Violanti & Aron 1994) and has been associated with near maximal estimated heart rates (Decker et al. 2016). Furthermore, high speed driving has been suggested to increase an officer's objective and subjective feelings of arousal and irritation towards a suspect(s) (Barton et al. 2000). In addition, an officer's self-rated willingness to shoot is reduced following high-speed driving, which could make them less likely to shoot a suspect in justifiable shooting scenarios (Barton et al. 2000). Perhaps most concerning whilst driving at high speeds is the danger that officers may be in, and the potential for an accident.

A study by Alpert (1997) found that following high speed police pursuits, damage to property occurred in up to 40% of cases, with crash related injuries occurring in up to 41% of all cases. Considering this, in the United States it is suggested that at least one person is killed every day due to a high speed police pursuit (National Highway Traffic Safety Administration Fatal Analysis Reporting System 2000) with 1 out of every 100 high-speed pursuits purported to result in a fatality (Falcone et al. 1992). As such, officers are placed in situations in which they may be required to drive at high speed to capture an offender or protect the public, yet are required to do so in a manner that does not create another critical incident, such as a car accident.

In the general population, it is well accepted that both age and experience are related to high speed vehicle accidents. Younger drivers are presumably at a greater risk of accidents, due to risky

lifestyle behaviours and poorer driving skills (McCartt et al. 2009). A potential issue with younger drivers, in this instance those between ages of 18–25 years, is that they may not perceive that they are greater risk of accidents when compared to older individuals, due to a dissociation between their perceived and actual ability (Matthews & Moran 1986). Furthermore, healthy older adults (65+ years) can maintain their driving skills when assessed in a standardised road test when compared to teenagers (18–19 years) and young adults (25–35 years) (Carr et al. 1992). Whether these population trends exist in police populations, with younger officers potentially having a higher risk of a high speed accident compared to older officers, is not yet known.

On this basis, the aim of this research was to investigate whether officers were more likely to be involved in a motor vehicle accident when driving at high speeds, and whether age or experience contributed to an increased risk of accident. Data from a standardised driving test performed by incumbent officers from one law enforcement agency in the USA were analysed. It was hypothesised that within a standardised law enforcement driving test, younger officers would make more errors or violations when compared to older officers.

Methods

Retrospective data from a USA law enforcement agency was provided for analysis. The data arose from results of the agency's standardised Driving Program Practical Test (DPPT). The test of an officer's pursuit driving skills as measured by the DPPT was required to be completed by all officers as part of their academy training. The intent of the course was to have officers complete the task as quickly as possible whilst incurring the fewest possible number of violations (e.g., hitting a cone).

Heart rate (HR) data for officers were captured using heart rate monitors (Polar USA, New York, USA) by the primary investigator. Academy training staff conducted the driving assessments and documented the results as part of standard academy protocols and policies. Course time was recorded in seconds and violations as single arbitrary units. Ethics approval for the conduct of this retrospective data study was received from the University of Colorado—Colorado Springs Institutional Review Board based in Colorado, United States (15-074) and complied with the 1964 Helsinki declaration and its later amendments.

The DPPT

The total course distance was 2.25 km and required officers to successfully complete seven distinct obstacles to assess various aspects of their driving skills. From an initial pre-marked starting area officers were required to start the vehicle and on the command 'go' negotiate the course as fast as possible (see Figure 1). The first obstacle was the 30.48 m High Speed Serpentine (1) in which the driver had to weave between 13 cones spaced 30.48 m apart.

Following this obstacle, the driver had to negotiate a marked lane change (2) before passing between cones that narrowed over 15.39 m to a funnel with a 2.37 m opening (3).

Following an offset serpentine manoeuvre (4), officers entered a slow speed section that encompassed a 15.24 m serpentine of 8 cones (5) followed by a dedicated low speed section (6) that included multiple changes of directions (see Figure 2). The final section (7) of the test had officers perform traffic light reaction drill, which entailed officers driving towards three lanes, each with a red traffic light.

Approximately 20m from the three lanes, one traffic light would turn green (while the others remained red) and the officers had to select that lane. The course was considered complete when the officer completed the traffic light drill. Upon completion, the timekeeper stopping the stopwatch and recording the time in seconds, signalling the completion of the trial. In addition, any marker cones that had been struck with a force sufficient enough to displace it, had been noted as a violation. Officers were allowed one attempt at the course.



Figure 1. Google Earth view of the Driving Program Practical Test (DPPT) with placement along the course of each obstacle noted.



Figure 2. Google Earth view of the 'Low Speed Section' (Obstacle 6)

Statistical Analysis

Statistical analyses were processed using the Statistics Package for Social Sciences (Version 24; IBM Corporation, New York, USA), and Microsoft Excel (Microsoft Corporation™, Redmond, Washington, USA). Due to the sample size, officers were stratified into two different age groups: 20–39 years, and 40–59 years, and descriptive data (mean \pm standard deviation [SD]) were calculated. A one-way analysis of variance (ANOVA) was used to determine any differences between the age groups. This type of analysis was conducted due to the sample size, in addition to the robustness of the one-way ANOVA procedure (Gamage & Weerahandi 1998; Lockie et al. 2017). Additionally, effect sizes (d) were also calculated for the between-group comparison,

where the difference between the means was divided by the pooled SD (Cohen 1988). A d less than 0.2 was considered a trivial effect, 0.2 to 0.6 a small effect, 0.6 to 1.2 a moderate effect, 1.2 to 2.0 a large effect, 2.0 to 4.0 a very large effect, and 4.0 and above an extremely large effect (Hopkins 2004).

This study also incorporated magnitude-based inference (Buchheit 2016; Winter et al. 2014) via an analysis of worthwhile differences regarding course time and violations. Individual officers were analysed, and grouped by decade (20–29, 30–39, 40–49, and 50–59 years of age) (Dawes et al. 2016, 2017). The data for each officer were converted to z-scores, via the formula: $z\text{-score} = (\text{officer test score} - \text{average score from the sample}) / SD$ (Lockie et al. 2016; Nimphius et al. 2016). Where appropriate, absolute values for z-scores were derived (e.g., the typical course time z-score, where a faster performance equates to a lower course time, leads to a negative z-score, so this was converted into an absolute value), such that a positive score above zero represented a superior performance compared to the mean; a negative score was considered worse than the mean.

Worthwhile differences were determined by comparing the course time and violation scores for each officer relative to the smallest worthwhile change (SWC) in z-score for these variables. The SWC for was calculated by multiplying the between-officer z-score SD by 0.2, which is the typical small effect (Hopkins 2004). As these were standardised scores, the SD is 1.0, and therefore the SWC equals 0.2. Thus, those officers that had a z-score difference (≥ 0.2 or -0.2) that exceeded the SWC either positively or negatively were deemed to have a meaningful difference in the time to complete the course or number of violations made.

Results

A total of 43 incumbent police officers (mean age = 39.30 ± 7.87 yrs; mean height = 1.80 ± 0.07 m; 95.86 ± 15.75 kg) completed the DPPT. The data for the between-group comparisons is shown in Table 1. There were no significant differences in maximum HR (measured during multi-stage fitness test), peak HR during the driving test, and the percentage of peak car HR relative to maximum HR. There were, however, significant differences, between the groups for driving test time and number of violations during the test. The 20–39 year group completed the test significantly faster, but with more violations, than the 40–59 year group. Both of these differences had moderate effects.

The z-score data for the driving test time and number of violations for each police officer is shown in Figures 3 and 4, respectively. As stated previously, a positive value above 0.2 indicated either a meaningful faster assessment time or lower violation number compared to the sample mean. A negative value below -0.2 indicated a meaningful slower assessment time or greater number of errors. Each 20–29 year old was meaningfully faster than the sample mean. Eleven of 21 30–39 year olds were meaningfully faster than the sample mean, while four were meaningfully slower. Five of 15 40–49 year olds were meaningfully faster in the sample, while five were also meaningfully slower. One of four 50–59 year olds was meaningfully faster, while the other three were all meaningfully slower than the sample mean.

With regards to the number of violations, two of three 20–29 year olds completed a meaningfully greater number of violations compared to the sample, while the other completed a meaningfully lower number. Twelve of 21 30–39 year olds completed a meaningfully greater number of violations compared to the sample, while eight had a meaningfully lower number of violations. Three of fifteen 40–49 year olds had a meaningfully higher violation number, while nine had a meaningfully lower number of violations.

Table 1. Age group comparisons—maximum heart rate, time to complete the driving assessment course, and the number of assessment violations

	20–39 years (n = 24)	40–59 years (n = 19)	<i>p</i> value	<i>d</i>	<i>d</i> strength
Maximum HR (b·min ⁻¹)	184.40 ± 12.15	178.31 ± 5.77	0.074	0.64	Moderate
Peak HR in Car (b·min ⁻¹)	138.65 ± 16.36	136.95 ± 14.23	0.724	0.11	Trivial
% of Peak HR	74.30 ± 8.46	78.88 ± 7.70	0.076	0.57	Small
Course Time (s)	249.17 ± 29.01	272.00 ± 36.83	0.028*	0.69	Moderate
No. of Violations	4.39 ± 3.20	2.44 ± 1.89	0.028*	0.74	Moderate

HR: heart rate; b·min⁻¹: beats per minute; s: seconds; * significant at *p* = .05 level

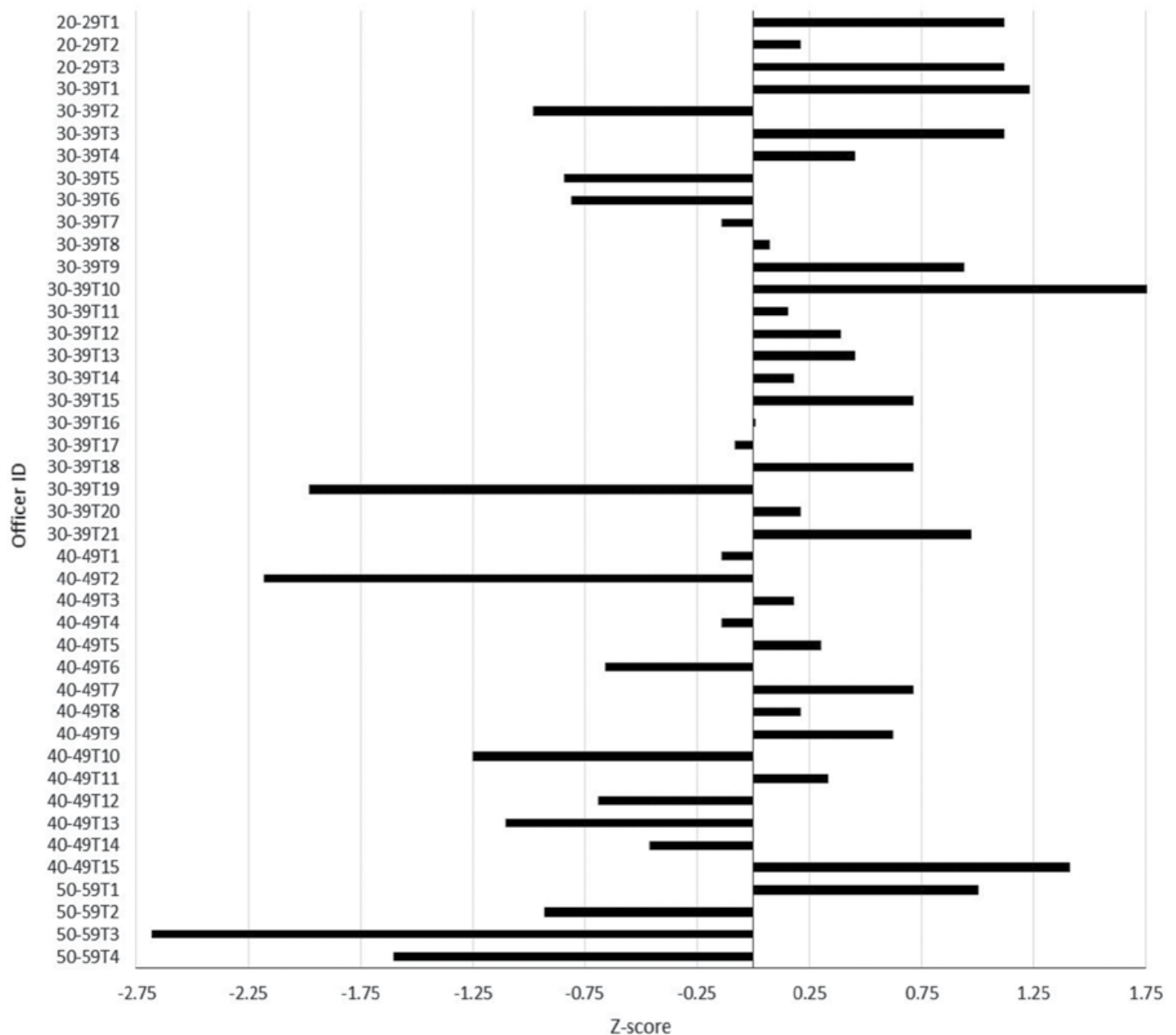
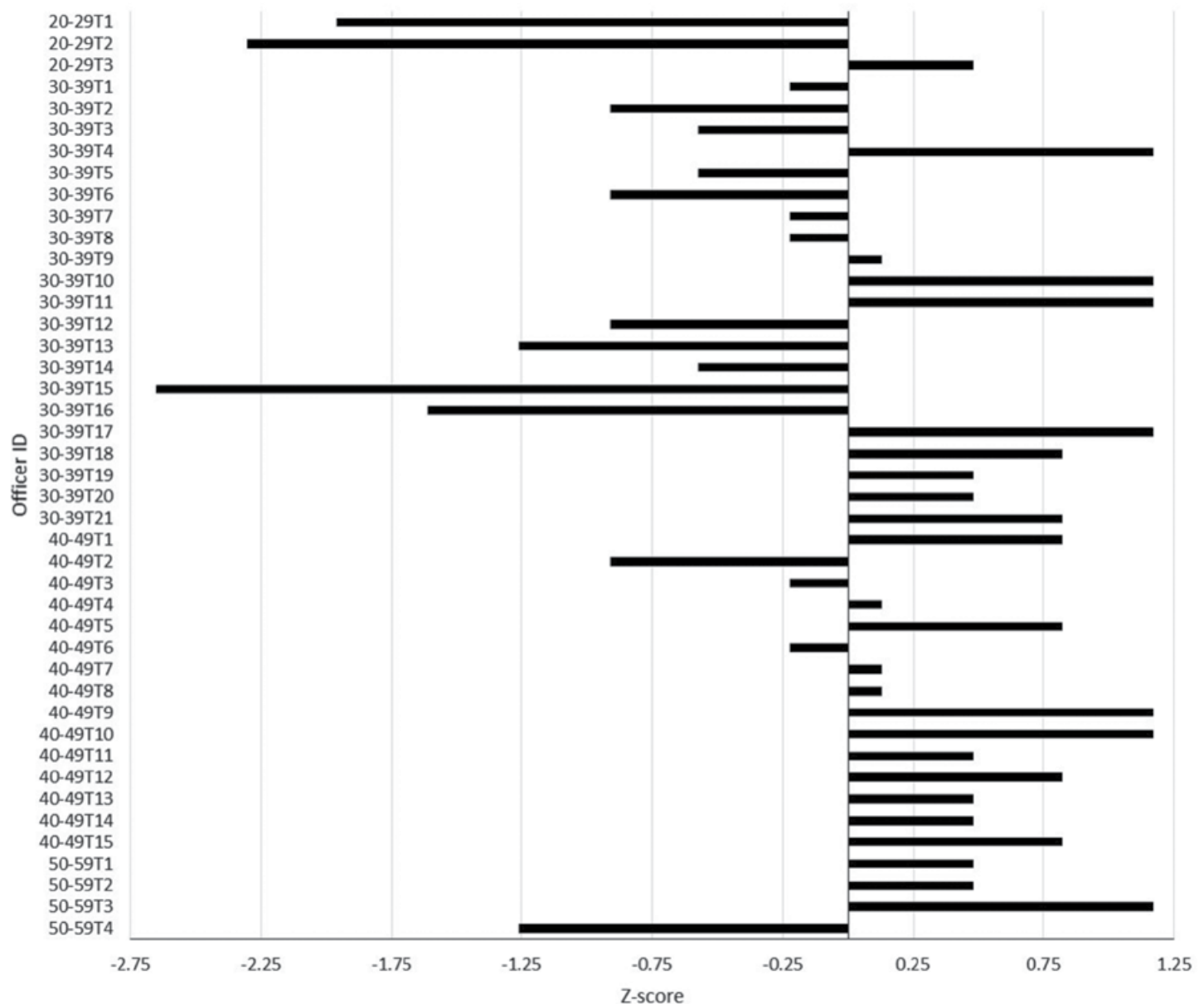
Figure 3. Z-score data for the driving test time for each police officer


Figure 4. Z-score data for the number of violations for each police officer



Only one 50–59 year old completed a meaningfully higher number of violations; three of four completed a meaningfully lower number.

Discussion

The aim of this research was to investigate whether officers were more likely to be involved in a motor vehicle accident when driving at high speeds, and whether age or experience contributed to an increased risk of accident. The results suggest that, in general, younger officers (< 40 years) completed the course significantly faster than older officers, yet likewise incurred significantly more violations. The results are suggestive of a driving speed versus driving precision trade-off.

One potential reason for the differences in results between younger and older drivers is the time away from the training academy. Hill (2002) noted that driver training typically occurs during initial cadet training, but is not continued post academy once an officer is qualified. As such, it is possible that younger officers are more confident, or possibly over-confident (Deery 2000), because they may potentially have had a more recent exposure to high speed pursuit training.

This is representative of younger individuals in the general population (Matthews & Moran 1986). Considering this time lapse from driver training at the academy, one known concern with younger drivers is that, although it takes relatively little time to learn vehicle handling skills and traffic laws, it takes a longer period to develop the perceptual and cognitive skills to interact with the traffic environment (Deery 2000). This is likely exacerbated in stressful situations, such as during high-speed driving (Driskell & Salas 2013).

Deery (2000) presented a model of human behaviour in response to potential driving hazards in the general population. Some of the factors highlighted for novice or younger drivers were that hazard perception was reduced, and that there was a tendency to fixate on fewer or on more stationary objects, a lowered perception of risk, and an over-estimation of driving abilities. Further, Deery (2000) noted a greater risk acceptance or threshold of risk. Within the context of the current study, the younger drivers may have accepted the risk of greater violations in order to complete the test course in a faster time. While there are fewer repercussions for these errors in a test environment, should errors occur while high-speed driving such as responding to

an emergency or during vehicular pursuit, the consequences could be much greater. These could include vehicle or property damage (Alpert 1997) and the associated financial costs (Miller et al. 2011), and more seriously, injuries and fatalities that could result from an accident (Crundall et al. 2003; Lundälv et al. 2010). Potentially due to experience, the older drivers in this study may have intuitively had a higher risk threshold due to the development of higher order cognitive skills (Deery 2000), and thus attempted to limit violations while driving the test course.

Although not investigated in this study, a future avenue for research would be to investigate the eye tracking and hazard perception in younger and older officers. Experienced drivers tend to scan the external environment more frequently, and tend to fixate for less time on potential hazards, which allows for the driver to more quickly refocus their attention back to the road and any other potential hazards (Underwood 2007). The older drivers in this study may have adopted this strategy, which allowed them to more efficiently shift focus from course obstacles to the road. Indeed, when compared to young novice drivers (age = 20.4 years, with less than 5 years driving experience), experienced police officers (age = 39.2 years, with 21.8 years driving experience) had shorter fixation durations during videos of traffic simulations, and had greater horizontal scanning (Crundall et al. 2003). This tendency for younger drivers to scan less and fixate more while driving (Deery 2000) could have contributed to the higher number of violations committed by the younger officers in this study. Research that investigates the eye tracking patterns of younger and older law enforcement officers while they complete high-speed driving tasks could elucidate important information as to how officers scan the road during stressful driving situations. This could then in turn influence the training of high-speed driving during academy periods (Underwood 2007).

Reduced environmental scanning in younger drivers may lead to a delay in noting and adapting to a hazard. The result of this delay could result in more violent perturbations and impact on vehicle control. This supposition is supported by findings that a lack of vehicle control was considered the most common primary cause of driver-responsible accidents in young adults 16–34 years of age (16.4%) when compared to adults in the older age group 35–54 years of age (8.4%) (McGwin Jr & Brown 1999).

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Electronic Monitoring of Curfew Compliance for Violent Offenders—An Evidence-Based Policing Approach

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Introduction

Offenders who are released on bail may be required to abide by a curfew condition. It is police who are often responsible for checking whether offenders are complying, through a process that can be resource intensive, inefficient, and disruptive to the accused. A potential solution to the difficulties posed by curfew compliance checks may be to monitor offenders electronically. As part of their approach to fostering a more responsive justice system and ending family and domestic violence, the Western Australian Government has indicated their intention to introduce an electronic monitoring trial for violent offenders (WA Labor 2017). For electronic monitoring programs to be successful, it is vital that we learn from the international experience, and adopt an evidence-based approach to policing to determine effectiveness. Electronic monitoring is a form of surveillance which can be used to monitor the location, movements and to some extent, the behaviour of offenders. This technology is used at every level of the criminal justice process worldwide, and is currently employed in over 30 countries. Electronic monitoring is thought to reduce reoffending and absconding rates (Padgett et al. 2006), and decrease the demands placed upon officers (Tennessee Board of Probation and Parole 2007). Despite its current and increasing use in Australia, little is known about its effectiveness. Here we examine the available literature pertaining to the use of electronic monitoring. We follow by proposing an evidence-based policing research program for testing effectiveness, along with a treatment of the potential risks, costs, and benefits.

Curfew Checks and Electronic Monitoring

Evidence-Based Policing

This literature review and research program will take an evidence-based approach. Evidence-based policing is a method of law enforcement decision making that involves using the scientific method to determine what works and what does not work in policing (Sherman 2013, p.379). While employing policing strategies based on empirical evidence may seem like an obvious approach to decision making, police organisations currently rely largely upon opinions, anecdotes, political pressures and best guesses to guide policing policy (Lum 2009). Adopting an evidence-based approach to law enforcement can help to ensure that taxpayer dollars are utilised most efficiently by maximising police efficacy and minimising crime (Sherman & Eck 2002). Sherman (2013) suggests that applying the scientific method to policing procedures involves utilising the triple-T strategy of 'targeting, testing and tracking'. Targeting involves recognising areas of concentrated crime or police effort and allocating resources appropriately, testing refers to empirically evaluating policing practices, and tracking involves determining whether police are operating in accordance with agency policies. It is hoped that taking an evidence-based approach to law enforcement will help to increase police legitimacy by ensuring that strategies are driven by research rather than opinion.

Bail

Bail refers to the conditional release of a suspect following an offence, with the aim of ensuring suspects adhere to certain conditions that

will reduce offending. In Western Australia (WA), for example, The Bail Act (1982) stipulates that following an arrest, the accused must be released unconditionally or brought before an authorised police officer or court for consideration of bail. Where the authorised officer has concerns with respect to possible reoffending or public safety, an accused's bail can be made conditional in accordance with Schedule 1, Part C, clause 1(a)(ii)(iii). Further, where the alleged offence occurred at night, giving rise to similar concerns, the officer in whom authority is vested to consider bail may, in addition to releasing the accused on his bail undertaking, impose any condition to address those concerns. WA police policy (Western Australia Police Bail and Curfew Management n.d.), ascribes such considerations with respect to curfew requirements, which may require the offender to reside at a certain address, between scheduled times, typically 7pm to 7am, as contained within Schedule 1 Part D, clause 2 of the Act.

Curfew Checks

The rationale behind imposing curfews is to deter individuals from participating in criminality. Curfew adherence decreases opportunities for crime and provides individuals with the opportunity to change their antisocial behaviours (Hucklesby 2008). Becker (1968) suggests that criminal behaviour is deterred when the risk of punishment is high. Therefore, when an individual is imposed with a curfew, and expects their adherence to be checked by police, they are discouraged from participating in criminal activity as the risks of getting caught and being subjected to disciplinary actions are high. Despite this theoretical basis, however, there is little evidence to suggest that curfew adherence reduces recidivism (Wong et al. 2010).

The curfew checking process involves a patrol level officer physically attending the accused's residence at any time during the specified curfew period. To ensure the accused is adhering to their bail condition, it is mandatory for the officer to physically see the offender. While physically checking curfews purportedly prevents reoffending and encourages bail compliance (Becker 1968; Hucklesby 2008), Amnesty International (2015) suggests that doing so damages police-community relations and detrimentally disrupts the accused and their family.

The disturbances caused by police conducting curfew checks are evident in a Transcript of Proceedings from the WA Magistrates Court (*Western Australia Police v. David Michael Arias* 2014). The transcript specifies that the accused was to remain in his family's residence from the hours of 7pm to 7am, as per his bail condition. The accused's mother informed the Magistrate that because of this bail condition, the family home was subjected to as many as five police visits per night, often occurring within a thirty-minute window. These disturbances were detrimental to the entire family, resulting in sleep deprivation and impacting upon their work commitments. The accused's mother also explained that adhering to the curfew had adversely affected her son's mental and emotional health as he struggled to maintain employment in a trade requiring him to arrive before 7 am. In response to these accounts, the Magistrate revoked the curfew imposition, stating that '[curfews] achieve very little and they create havoc in the lives of- not only of offenders, but in the lives of the offender's family' (*Western Australia Police v. David Michael Arias* 2014, p. 5).

An examination of the Computer Assisted Dispatch system conducted by Daley (2017), revealed that from 1 February to 30 June 2016, WA police conducted 46,955 curfew checks. Specifically, 20,953 were

undertaken in the Perth metropolitan area, and 26,002 were conducted in regional WA. The cost of undertaking these curfew checks during the specified time period was estimated to be \$2,044,890 (calculated by multiplying the number of curfew check tasks by the average time taken to complete a check, multiplied by the average hourly wage of the attending officers). The CAD data revealed—despite this large allocation of resources—that officers in the Perth metropolitan districts only checked their top 20 high-risk defendants each night, with some receiving multiple visits (Daley 2017). In regional WA, 100% of curfews were monitored by police (Daley 2017).

It is evident that the current state of curfew checking in WA can be detrimental to both the accused and their families, is resource intensive, and potentially lacking in efficiency. A less disruptive and more efficient means of ensuring accused individuals are adhering to their curfews could be an important priority for police.

Electronic Monitoring Technologies

An alternative to physically monitoring curfew compliance may be to make use of electronic monitoring technology. Driven by jail overcrowding, and facilitated by technological advancements, the use of electronic monitoring is prevalent at every level of the criminal justice process worldwide. Electronic monitoring refers to forms of surveillance of people's location, movement and behaviour (Bartels & Martinovic 2017; Nellis & Lehner 2012). The legislative basis for monitoring offenders electronically in WA is evident in Section 118 of The Sentence Administration Act (2003). Specifically, the Act stipulates that any device or equipment may be installed to monitor the offender at their residence, which is currently undertaken by a Community Corrections Officer. There are two main forms of electronic monitoring: Radio Frequency Identification (RFID) and Global Positioning System (GPS).

Considered the 'first generation' of electronic monitoring, RFID is commonly used on low-risk offenders to monitor home detention or curfew compliance (Nellis & Lehner 2012). This technology involves fitting a tamper-proof device to the ankle or wrist of an offender and installing a monitoring unit within their residence. The monitoring unit is connected to law-enforcement via a landline and alerts authorities immediately if the signals received from the RFID tag indicate a breach of set distance parameters (Bartels & Martinovic 2017; Schmidt 1998). Authorities are also alerted if the device is removed or tampered with.

GPS technology costs approximately five times that of RFID devices and is therefore typically reserved for high-risk offenders, including both sex offenders and violent offenders (Graham & McIvor 2015). The three types of GPS trackers are active, passive, and hybrid:

Active: Active trackers provide law-enforcement agencies with the 'real time' location of offenders via satellite transmission. The frequency at which authorities receive information regarding an offender's whereabouts is specified by law enforcement, and is determined according to the risk profile of the offender (Buchholz et al. 2014)

Passive: Passive GPS receivers continuously collect monitoring data throughout the day. The data, however, is only received by law enforcement when the offender plugs the device into the charger (Brown et al. 2007). The charging dock must be connected to a land line for authorities to receive the data.

Hybrid: In Hybrid GPS tracking, both active and passive technologies are used. If the offender is complying with the specified conditions, the information is received by law enforcement in a time frame that is longer than Active tracking (generally every few hours). If an offender breaches their conditions, however, the tracker automatically switches to the Active mode and begins to track the offender in real time.

GPS technology allows law enforcement agencies to set 'geofenced' inclusion and exclusion zones for each offender (Gies et al. 2012). Inclusion zones specify a location perimeter that an offender is required to occupy during certain time periods, whereas exclusion zones specify a location that an offender is prohibited from entering, either at certain time periods or at all (Gies et al. 2012). If the offender breaches either of these set parameters, law enforcement is contacted immediately. All three forms of GPS require offenders to be fitted with an ankle bracelet, a personal tracker, and a base unit. Because the battery life lasts between 18 and 30 hours, offenders are required to charge the batteries on their personal tracking units daily. For GPS to work efficiently, the bracelet and the personal tracking unit must remain within range of one another. If the offender tampers with the device in any way, a tamper alert is relayed to the monitoring centre.

The International Experience

Aligning with the evidence-based approach to policing, the intent of this proposal is to understand what works and what does not work when electronically monitoring offenders on curfew. As such, a fruitful approach would be to learn from the experiences of law enforcement agencies worldwide. Here we review published literature pertaining to the use of electronic monitoring on a range of offender types, with the aim of identifying strengths and weaknesses. Seven relevant studies were identified and their background, research design, main findings, and limitations are summarised in Table 1. The potential advantages and disadvantages of electronic monitoring on the basis of these studies are discussed in Table 1.

Potential Advantages of Electronic Monitoring

Law-Enforcement

In the Tennessee Pilot, police officers indicated that electronic monitoring was a positive supervision tool because it provided detailed information regarding the offender's whereabouts. Law enforcement suggested that electronic monitoring increased police productivity because it allowed officers to complete other tasks instead of continuously monitoring curfews (Tennessee Board of Probation and Parole 2007).

Public Safety

Electronic monitoring has been found to improve public safety by reducing offender criminality. In the Florida pilot, it was found that electronic monitoring reduced the likelihood of offenders absconding or reoffending while on home detention (Padgett et al. 2006). Similar results were found in the United Kingdom pilot where electronically monitored offenders had lower reconviction rates during their bail periods and at the 6 month follow-up compared to controls. These findings are also consistent with those of the Scottish study. One participating officer stated, for example, that "It's another tool in the tool box as far as I'm concerned that should be getting used. I sleep quite happily at night knowing someone's tagged in their house and they're not in mine" (Barry et al. 2007).

GPS provides authorities with near real-time data regarding offender whereabouts, and so law enforcement agencies are able to act immediately in response to a violation. An offender, therefore, could be apprehending before they have the opportunity to commit a further crime. In the Tennessee Pilot, for example, when upon receiving information suggesting an offender had violated his bail conditions the officer was able to respond immediately (Tennessee Board of Probation and Parole 2007). In this case, the electronic monitoring technology coupled with the officer's immediate response prevented potential harm to a child, and resulted in the offender's incarceration.

Table 1. Summary of international published literature on electronic monitoring, including background, research design, main findings, and limitations.

Study	Background	Research Design	Main Findings	Limitations
Florida 1998–2002 Padgett, Bales & Blomberg 2006	The aim of the analysis was to determine the effectiveness of GPS and RFID technology when worn by offenders sentenced to a home-confinement program.	The data were separated into 4 groups: No Electronic Monitoring (N = 45,475); Total Electronic Monitoring (RFID and GPS) (N = 3,347); RFID Monitoring (N = 2,203); and GPS Monitoring (N = 1,144). Dependent Variable: Rates of absconding and new offences.	After controlling for sociodemographic factors and offender history, offenders on EM were 94.7% less likely to commit a new offence and abscond, than offenders not electronically monitored. RFID was slightly more effective than GPS for violent, property and drug offenders. Both types of EM produced a prohibitive effect on absconding.	Offenders were not randomly assigned and the groups had significantly different characteristics. Researchers controlled numerous variables including offender characteristics, supervision conditions and criminal history to account for the group differences as far as possible.
United Kingdom 1999 Dodgson et al. 2001	England and Wales introduced The Home Detention Curfew scheme, allowing eligible offenders to complete the final 60 days of their sentence in their homes under electronic monitoring.	The data was separated into two groups: Discharged on home detention under EM, and offenders discharged in 1998 who were released prior to the scheme. Dependent Variable: Rates of reoffending during the curfew period and rates of reoffending at a six-month follow up.	Offenders serving their final 60 days in home detention with EM, had significantly lower reconviction rates than controls. At the 6 month follow up, the treatment group had significantly lower reoffending rates when compared to controls. 8% of the treatment group reoffended, compared to 31% of the control group.	These results are confounded by the home detention/incarceration conditions. Therefore, it is unclear which variables are influencing reoffending rates.
Canada 1999 Corrective Services Canada 2009	The aim of the study was to evaluate the effectiveness of the EM Pilot Program which electronically monitored offenders on conditional release from prison. In phase one, one staff member wore the GPS tags to assess the technology. In phase two, nine offenders were released into the community under EM and required to adhere to either a curfew or home confinement. The third phase added 47 offenders to the pilot program on conditional release.	To test the effectiveness of EM, offenders (N = 9) and staff (N = 37) were asked to participate in an interview. Of the 46 offenders involved in the pilot, nine participated voluntarily.	Of the staff interviewed, 88% agreed there was a need for EM; 98% believed EM “filled a gap” in offender supervision; 89% agreed that EM addressed challenges associated with monitoring curfews; 80% stated the device had malfunctioned. Of the offenders interviewed, 50% experienced problems with the size, comfort, and visibility of the device. 100% believed the battery took too long to charge. Throughout the pilot, tamper alerts occurred because: 5% were true tamperers; 32% were related to the offender’s activity such as exercising; 42% were issues with the device; 21% were a combination of factors.	Only 20% of the entire offender sample voluntarily participated in the interview, therefore these offenders’ views are not representative of the offender population.
Tennessee 2005–2006 Tennessee Board of Probation and Parole	Pilot program testing the effectiveness of monitoring sex offenders via GPS. All violations were sent to a monitoring centre and serious alerts were assigned to an officer for investigation. The project was executed by existing BOPP staff.	Treatment group: monitored by GPS (N = 493); Control group: Offenders previously subjected to police supervision (N = 370). Dependent Variable: Recidivism rates	No significant differences between the two groups were found in: Violation frequency; New charges; Number of days before first violation. The pilot cost \$1,871,787.96, with the majority of expenses funding the GPS equipment.	Groups were not randomly assigned. Researchers attempted to replicate random sampling by selecting counties from varying locations, with varying population densities and offender characteristics.
Scotland 2005–2006 Barry et al. 2007	Law-enforcement in Scotland undertook a pilot program implementing EM as a bail condition. The majority of individuals were imposed with a curfew condition requiring them to remain in a specified residence from 7pm to 7am.	Researchers interviewed 45 staff, 16 accused individuals and 15 household members, collecting quantitative and qualitative data. Overall, 63 individuals were electronically monitored while on bail for aggression, disorderly conduct or violent offences. 46% of participants were under the age of 20. DV: Questions pertaining to the appropriateness and effectiveness of EM bail.	Of the offenders electronically monitored: 30% were compliant; 70% breached their curfew condition; 36% breached their curfew within the first 10 days of receiving order. Of the electronically monitored individuals under 20 years of age, 79% breached their bail conditions. Qualitative analysis revealed they “couldn’t be bothered sticking to the terms”. Of the individuals accused of breaching their previous bail conditions by committing a criminal offence, 70% breached their bail again.	The data was incomplete due to poor data collection methods. Small sample therefore cannot be generalised. There was no control group.
California 2006–2009 US Department of Justice	Californian study evaluating the effectiveness of monitoring high-risk sex offenders via GPS upon release from prison. In California, it is mandatory that all sex offenders are supervised via GPS for life.	Experimental Design- Treatment group- On parole with GPS monitoring (N = 259). Control group- subject to parole only (N = 259). To account for the differences between the treatment and control groups, participants were matched for pre-treatment characteristics. Dependent Variable: Recidivism and compliance rates. Staff were also interviewed about their experiences (N = 128).	Recidivism rates were more than twice as high for the control group compared to the treatment group subjected to GPS monitoring. Days until a new conviction was greater for the treatment group monitored via GPS than the controls. Of the staff: 16% reported always or frequently experiencing problems with tamper alerts; 37% reported always or frequently experiencing programs with drift.	Participants were not randomly assigned. As participants were matched rather than being randomly assigned, it is possible the control group differed from the treatment group in unobserved ways.
New Zealand 2015–2016 Department of Corrections	Globally, New Zealand is one of the biggest users of RFID and GPS technologies for corrective purposes. GPS technology is utilised for monitoring offenders on home detention and parole.	In 2015/2016, 13,499 offenders were monitored electronically.	In the specified time period, corrections reported: 0.5% – 1.0% of offenders removed their trackers and absconded; 97.1% did not remove their trackers; 3.5% of offenders were convicted of a new offence while being electronically monitored; Of the 448 individuals on electronically monitored bail, 19 absconded.	These findings were obtained from the corrective services website and there was no access to the raw data. Consequently, these findings should be interpreted with caution as they may be inherently biased or incomplete.

Investigation Assistance and Deterrence

GPS tracking data can be overlaid with crime incident data to allow law enforcement agencies to determine if an offender was in the vicinity of a crime, thus assisting police to identify or exclude the electronically monitored offender (Gies et al. 2012). In the Tennessee Pilot, the GPS data was utilised to confirm an offender’s presence at the scene of a murder, which assisted police with their investigation and resulted in the offender’s murder conviction (Tennessee Board of Probation and Parole 2007).

Electronically monitoring offenders may reduce absconding and reoffending rates. It is therefore reasonable to assume these findings are indicative of a deterrence effect, as electronic monitoring technology reliably tracks offenders in real time and so possibly deterring criminality by increasing punishment certainty (Padgett et al. 2006).

Potential Disadvantages of Electronic Monitoring

Increase in Officer Workload and Overtime

Officers involved in implementing the Tennessee pilot were detrimentally affected by their participation in the study due to the onerous time requirements of GPS monitoring. Officers stated that because they were expected to respond to alerts 24 hours a day, their work schedules became unpredictable and subsequently impacted morale and quality of life. Indicative of the impacts on officers, 27% of those involved in the Tennessee pilot requested reassignment. This number is considerably higher than the previous year’s staff turnover rate of 7% (Tennessee Board of Probation and Parole 2007). From 2005 to 2007, the Tennessee Board of Probation and Parole spent \$344,159 on overtime for monitoring staff. This figure is substantially higher than the prior agency-wide 2004–2005 overtime expenditure of \$32,600 (Tennessee Board of Probation and Parole 2007).

Equipment and Compliance

Problems associated with the electronic monitoring technology present constant challenges for law enforcement agencies. In the Tennessee pilot, officers stated they spent a substantial portion of their time attending to equipment malfunctions rather than to the offenders themselves. In the Canadian pilot, 80% of monitoring staff indicated that the technology had malfunctioned (Correctional Service Canada 2009).

Another problem relevant to electronic monitoring technology is referred to as ‘drift’. GPS drift occurs when the location points specified on the monitoring map are inaccurate, thus displaying either incorrect position readings or no readings at all (Gies et al. 2012). These position errors occur because GPS receivers require an unobstructed view of the sky and therefore experience technical difficulties when inside buildings, underwater, or underground (Gies et al. 2012). In the Canadian pilot, drifts of up to 200 metres were reported (Correctional Service Canada 2009).

Due to the frequency with which these equipment issues occur, some officers consider violations to be inaccurate and consequently do not respond to them (Tennessee Board of Probation and Parole 2007)—a situation similar to false alarm effect seen with medical audible alarms in the operating theatre (Edworthy 2013). Recent advancements in position calculation, such as dead reckoning, may reduce false alarms (Martinovic 2013).

For electronic monitoring to work, individuals must comply with the unit’s operating requirements. Officers report that it takes time to familiarise themselves with the equipment, and so technical problems commonly occur during the first few months. These technical problems can inadvertently result if the device is not carried correctly or if warnings and guidelines are not adhered to (Brown et al. 2007). Some offenders, however, remain noncompliant with the equipment (Tennessee Board of Probation and Parole 2007).

Stigmatisation

Anecdotal accounts from the Tennessee pilot suggest that some offenders were detrimentally impacted by the GPS monitoring. Specifically, officers reported that the visibility of the device resulted in offenders being verbally abused by strangers and deprived of employment. In the U.K pilot, some juveniles felt the device was stigmatising and humiliating. Individuals subjected to electronic monitoring are unable to remove their monitoring devices throughout the day, advertising to society their 'criminal' label. This advertising may lead to social disadvantage and exclusion. These negative associations cause deviant individuals to experience social rejection as they are typically ostracised by their communities (Hirschfield & Piquero 2010). This separation from society may hinder any efforts by the accused to act as a normally integrated member of the community, with potential effects on their social support networks, employment and education. The literature suggests that once an individual has been ascribed a label, they experience embarrassment and disgrace, causing them to engage in further acts of criminality. This effect may counteract short-term efforts to control criminal behaviour (Akers & Sellers 2009).

False Sense of Security

While electronic monitoring technology may provide information pertaining to the whereabouts of an offender, it may not reveal the offender's behaviour (DeMichele 2014). A false sense of security provided by GPS monitoring was evident in the United States when a sex offender who was being electronically monitored was charged with holding a girl hostage for several years. While the GPS device informed law enforcement that the offender was in his backyard, the monitoring officers never checked on what the offender was doing in his yard (Bartels & Martinovic 2017). If an offender is determined to breach their boundaries and commit a crime, a crime can be committed well before the arrival of law enforcement (Bülow 2014). Further, data used in these studies was based on official arrest statistics and so represents the crimes that have come to the attention of police. Crimes that have not come to the attention of police will continue to go unnoticed even with electronic monitoring.

Privacy and Evidence

Ethical issues around privacy arise with the use of electronic monitoring. When electronic monitoring is not used and offenders are required to adhere to a curfew, they do so during specified time periods. Outside these periods, offenders are free to leave their residence. If, however, curfew adherence is electronically monitored, law enforcement will have continuous access to the accused individual's whereabouts because the electronic monitoring device remains on for the entire bail duration. This situation may be considered a breach of privacy because these individuals have not yet been convicted for their crimes. Further, as a result of the technical problems associated with the GPS equipment, judges may be wary about accepting GPS-based evidence in court. During the Tennessee pilot, for example, several warrants were dismissed because the GPS data was not considered adequate proof of a violation (Tennessee Board of Probation and Parole 2007).

The National Experience

Having reviewed the relevant literature and summarised potential advantages and disadvantages of electronic monitoring, we now describe the Australian experience. In Australia, electronic monitoring has been used to monitor sex offenders and other offenders on home detention (Bartels & Martinovic 2017). Commencing in 1985, offenders on home detention were supervised electronically in all mainland

states of Australia. Initially, RFID was the method of electronic monitoring implemented. Recently, however, law enforcement agencies nationwide have transferred to GPS technology (Bartels & Martinovic 2017). Since 2003, following societal reactions to the release of high-profile sex offenders into the community, New South Wales, Victoria, Queensland and Western Australia have implemented GPS technology to monitor sex offenders. Despite the prevalence of GPS use in Australia, no empirical studies examining its effectiveness have been undertaken.

New South Wales currently monitors dangerous sex offenders using electronic monitoring. In 2016, the Government allocated \$2 million to trial GPS technology to track high-risk domestic violence perpetrators, allowing law enforcement and victims to receive alerts if an offender enters a restricted area. Throughout 2014 and 2015, approximately 200 offenders were supervised using electronic monitoring. Offenders charged with murder, manslaughter, armed robbery or sexual assault are not eligible for home detention.

South Australia uses electronic monitoring to a greater extent than other Australian jurisdictions. Home detention is monitored electronically as either a 'back end' or 'front end' alternative to prison. Dangerous sex offenders and offenders on bail are supervised via electronic monitoring. The Northern Territory uses electronic monitoring for home detention. Typically, twenty offenders are monitored at any one time (Australian Bureau of Statistics 2016). In Victoria in 2013, GPS monitoring was introduced as a parole condition. In June 2016, 87 offenders were electronically monitored. Western Australia monitors dangerous sex offenders with GPS technology. Corrections utilises RFID technology to monitor a range of offender types, subject to conditional bail with a home detention requirement. Offenders can be monitored for a maximum of 6 months. In June 2016, 19 dangerous sex offenders were electronically monitored.

An Evidence-Based Policing Approach

Having reviewed the international published literature on electronic monitoring and described the Australian experience with the technology, we now describe an evidence-based approach to the question of electronic monitoring efficacy. We also consider ethical and legislative considerations, police agency and legitimacy risk, and officer engagement.

The purpose of an experiment would be to determine whether monitoring offenders electronically is a more efficient means of checking curfew compliance compared to police physically conducting checks. When compared to current curfew checking practices, the literature suggests that electronically monitoring curfew adherence will be less disruptive, reduce recidivism and result in fewer curfew breaches. The primary hypothesis would be that electronically monitoring curfew compliance will reduce the amount of time officers spend attending to individuals on curfews in comparison to current curfew checking practices. Secondary hypotheses could include assessing rates of recidivism, breach rates, social effects, and cost to police.

For a station or district to be suitable experimentation, it should have (1) an appropriate number of individuals issued with bail imposed curfew conditions, (2) satisfactory mobile network coverage to the area to ensure GPS accuracy, and (3) availability of and buy-in from police officers. A randomisation protocol should be established to ensure that each individual issued with a curfew has equal probability of being allocated to either the control group or the treatment group.

In terms of measurement, the electronic monitoring condition will immediately detect breaches, whereas breaches within the control condition will only be detected if an officer attends the residence at a specific time.

The electronic monitoring condition, therefore, may record many more breaches not because more were occurring in comparison to the control condition but because of the sensitivity of this condition. To overcome this issue, researchers could establish specific time frames during which electronic monitoring and physical curfew checks would both be conducted with certainty. This approach would provide comparability between approaches and so increase experimental control. On the other hand, the approach would not reflect current police practice and so may compromise external validity. The costs and benefits of controlling for the sensitivity of the electronic monitoring condition should be thoughtfully considered as doing so is essentially controlling for some of the very benefits (and costs) that electronic monitoring purports to provide.

Ethical and Legislative Considerations

Consideration should be given as to whether offenders participating in the trial are required to give informed consent. If participation in the experiment is contingent upon consent then a sample bias could result. To remove the informed consent requirement, legislation must stipulate that police are legally permitted to monitor individuals on curfew electronically. The current legal basis for this approach may be found within The Bail Act (1982) and The Sentence Administration Act 2003. Sections 50K and 50L of The Bail Act specify that an electronic device may be placed on an accused individual required to adhere to a home detention condition, but a Community Corrections Officer is still responsible for monitoring them. To waive the need for informed consent, police must work together with Corrections to monitor the experiment or consider discussing the experiment with the courts to have the legislation amended for the purpose of the trial.

Police could ensure that any group identified in the *Equal Opportunities Act* (2010) will not be disadvantaged from participation in the experiment. To assist with ensuring the experiment is not disadvantaging a certain group, police should consult a substantive equality assessment process relevant to the selected location in order to take the local offender demographic into account. For example, if the area participating in the trial is remote there may be a number of individuals without a permanent residence, which would make their participation in the trial difficult. Similarly, individuals subjected to electronic monitoring will likely experience stigmatisation, causing embarrassment and disgrace, and so potentially counteracting any effort to control their criminal behaviours (Akers & Sellers, 2009).

Police Agency and Legitimacy Risk

If an offender, while participating in the experiment, were to commit a high-profile offence, there is a risk that the public or the media may not appreciate the purpose of the trial and the police force may be held accountable. Similarly, if the electronic monitoring equipment were to malfunction, resulting in an offender committing an offence, or if an officer fails to attend to an alert resulting in an offence, the police force may be held accountable. Such matters are costly and undesirable (Gies et al. 2012). Risk could be minimised by ensuring that offenders classified as ‘high-risk’ do not participate in the experiment (see Matson’s 2016 recommendations of offence types that should be excluded from a trial). Weekly tracking statistics—including breaches, reoffending rates, and deployment hours—should be collected and released to a steering committee for regular risk assessment.

Police legitimacy refers to the judgments made by citizens regarding the fairness of police conduct (National Research Council 2004). The experiment could detrimentally affect police legitimacy if, following the experiment, the treatment was not found to be effective. Police could be viewed as making irresponsible decisions that exceed their legitimate role by conducting experiments at the expense of the public.

Officer Engagement

Officer engagement is especially important for an experiment like this one. Randomised controlled trials are considered one of the most powerful experimental designs (Stolberg et al. 2004). The power of this methodology is derived through the random allocation of participants to either the treatment or control group because doing so ensures that on average all variables between the groups are equal. This allows researchers to assume that any significant differences found between the two groups can be attributed to the treatment or intervention, rather than to an uncontrolled variable.

To protect the integrity of the research and to ensure that the findings derived from the experiment were due to the different curfew monitoring procedures, it is essential the officers involved in the study strictly adhered to all aspects of the experiment and measured the data accordingly (Jadad 1998). Ensuring the officers comply with the experiment, therefore, is vital to the success of the research.

Research pertaining to increasing officer compliance in evidence-based policing experiments has found that officers are more willing to engage in an experiment if they have been exposed to the scientific method (Palmer 2011). Educating officers about the scientific process is likely to increase their confidence in experimentation and reliance on the knowledge of what works (Sherman 2015). This can be achieved by posing experimental scenarios to officers and encouraging their involvement. Officers are also more receptive to material when the agency makes use of its usual channels of communication because suspicion arises when the information is delivered through police leaders or by external experts (Lum et al. 2012). By encouraging attachment and a sense of ownership over the experiment on a local level, officers may be more inclined to comply with and support the treatment parameters. Formalising the participation of supervisors through a project working group could foster a sense of shared ownership.

Discussion

In order to determine whether bailees are abiding by their curfew conditions, police are often required to undertake curfew checks physically. These checks can drain police resources and disrupt the accused and their families. The difficulties posed by conducting physical checks may be resolved by employing electronic monitoring technology to monitor offenders. A randomised controlled trial could help determine which method of monitoring curfew compliance is more effective.

Successful execution of a trial relies upon the agency being willing to invest funding and personnel in the trial and accept the risks that come with innovation. The internal validity of the experiment relies upon the participating officer’s compliance to the measurement procedures.

To minimise the risk of noncompliance, data reporting procedures must be easy to follow and require minimal effort or time on behalf of the officer. If participation in the experiment requires consent, the findings may lack external validity due to the inherent sample bias. Suitable analysis of sub-groups—for example, understanding differential outcomes for younger and older offenders, or offenders within different crime types—along with qualitative analysis of outcomes for individuals and families, will allow better understanding of the generalisability of electronic monitoring to different locations or offender groups. Legislative change may also be required before electronic monitoring can be adopted by police as part of the everyday suite of management options for offenders in the community.

The international literature suggests that monitoring offenders electronically increases public safety by reducing absconding and reoffending rates. Accounting for these findings may be the deterrence effect produced by the technology, because electronically monitoring offenders increases punishment certainty. The technology may have residual effects, such as a reduction in reconviction rates during the 6-month post-bail period, as is evident within the literature. Electronic monitoring offers several benefits to law enforcement agencies because monitoring offenders electronically permits officers to complete other tasks. Internationally, the technology has assisted law enforcement with criminal trials as the tracking data has been used to identify or exclude offenders. Real-time tracking data allows officers to respond immediately when an offender escapes, often resulting in the offender's apprehension. Electronic monitoring may also provide intangible benefits by increasing police legitimacy through decreasing community disruption.

Despite the benefits of electronic monitoring, the technology is not without its limitations. The literature indicates that changing curfew checking practices with electronic monitoring may be costly due to the expenses associated with the initial set-up. Further, there are considerable complications associated with the equipment and its monitoring capabilities. It is essential that law enforcement are not lulled into the false sense of security provided by the equipment—electronic monitoring is simply a tool that provides information regarding an offender's location rather than behaviour.

Current curfew checking practices may benefit from incorporating electronic monitoring. A randomised control trial should be conducted in order to determine efficacy. The data derived from the trial can be used to increase curfew checking efficiency, inform policy, improve transparency in the use of public funds and enhance public safety.

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On a Bike or In a Car?

Will Wearing Lycra Make Police Officers More Compliant with Random Assignment?

Geoffrey C. Barnes and Simon Williams, Western Australia Police Force

The Western Australia Police Force recently concluded a randomised trial of hot spot patrols, comparing officers on bicycles to more traditional automotive patrols.

The experiment used a somewhat-novel approach to random assignment. Instead of dedicating specific locations to be served only by one type of patrol, the 15 hot spots were randomly assigned anew every day.

Either three or four of these locations were allocated to automotive patrols. If the dedicated bicycle team was scheduled to work on that day, three additional locations were randomly

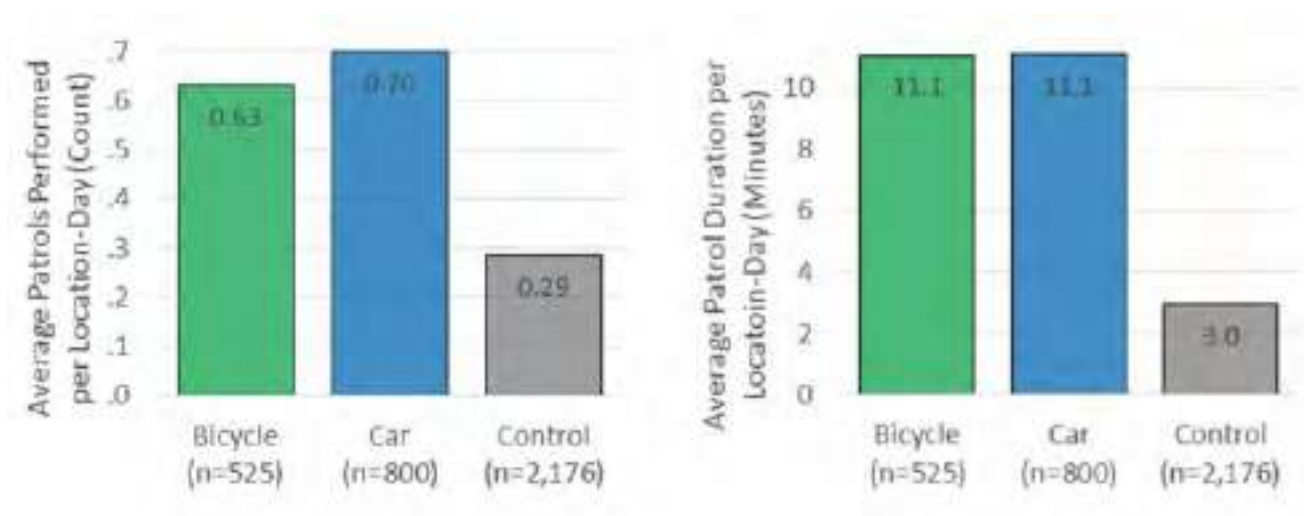
assigned to be bicycle patrols. When a location was selected for proactive patrolling, in either group, officers were asked to conduct two targeted visits that day, with a goal of each visit lasting 20 minutes. The remaining 8-12 hot spots were designated as control locations for that specific day, in which (hopefully) only reactive police presence would occur, and no proactively-targeted patrols would take place.

On the key question of offending, data collection and analysis are still in process and the results are not yet available. But one thing is

abundantly clear – despite our initial hypotheses about the advantages of bicycle patrols, and regardless of their apparent advantages in delivering proactive and visible police presence, the automotive officers were ultimately better able to meet their patrol targets.

Neither method was able to consistently meet the visit and duration targets, a trend observed in similar studies.

However, both groups delivered more patrol to their treatment locations than took place during the control days, with officers in cars doing slightly more patrols and providing the same duration of police presence.



At first glance, bicycles should have had a clear advantage over cars for hot spot patrolling. They were largely separated from the dispatch system, with no means of seeing queued jobs on the computer-aided dispatch (CAD) screen.

Unlike those in cars, their location was not visible to the control room, which meant that they were not assigned

to jobs based on their proximity to an incident. Their slower speed of travel, highly-visible attire, and more approachable nature should also have encouraged longer dwell times once they arrived at a targeted hot spot.

These advantages, however, did not translate to better compliance with random assignment. The bicycle officers were often pulled off their

bikes and placed on other duties, some of which required them to use automotive transport. In the end, the experiment appears to be a success in delivering different amounts of patrol in compliance with random assignment.

But the mode of transportation used by the police appears to be irrelevant to this success.

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